DESCRIPTIVE CIRCULARS

— ON —

NEW DRUGS,

AND SPECIALTIES,

INTRODUCED BY

PARKE, DAVIS & CO.,

DETROIT, MICH.,

U. S. A.

Fine Pharmaceutical Products

FROM THE LABORATORY OF

PARKE, DAVIS & CO.,

DETROIT, MICH., U. S. A.

New York—60 Maiden Lane and 21 Liberty Street.

STANDARD PREPARATIONS.

Fluid Extracts.
Sugar and Gelatin Coated Pills.
Pink Granules.
Pills of the British Pharmacopœi
Pills Metric System.
Solid Extracts.
Powdered Extracts
Concentrations.
German Tinctures.
Elixirs.
Wines.
Syrups.
Extract Malt and Combinations.
Effervescent Preparations.
Medicated Lozenges.
Roll and Spread Plasters.
Collodions.
Confections.
Ointments.
Glyceroles
Cerates.

—NEW DRUGS—

FLUID EXTRACTS.

Adrue.
Ailanthus Glandulosa.
Alligator Pear Seeds.
Alstonia Constricta, True.
Anagallis Arvensis.
Areca Nuts.
Bamboo Brier Root.
Baycuru Root.
Bears Foot.
Berberis Aquifolium.
Black Haw, U. S. P.
Blood Flower.
Boldo Leaves.
California Fever Bush.
California Laurel.
Carnauba Root.
Caroba Leaves.
Cascara Amarga.
Cascara Sagrada.
Cedron Seed.
Cereus Bonplandii.
Cereus Grandiflorus.
Cereus McDonaldii.
Cheken.
Chewstick.
Coca Leaves, U. S. P.
Cocklebur.
Corn Silk.
Coto Bark.
Damiana.
Dita Bark.
Duboisia Leaves.
Elephant's Foot.
Ephedra Antisyphilitica.
Eucalyptus Globulus, U. S. P.
Euphorbia Pilulifera.
Evening Primrose.
Ginger, Mexican.
Grindelia Robusta, U. S. P.
Grindelia Squarrosa
Guaco Leaves.
Guarana, U. S. P.
Helianthella.
Honduras Bark.
Horsemint.
Iron Wood.
Jaborandi, U. S. P.
Jamaica Dogwood.
Jamaica Pimento, Leaves.
Judas Tree.
Kamala.
Kava Kava.
Kooso Flowers, U. S. P.
Lily of the Valley Flowers.
Lily of the Valley Herb.
Lily of the Valley Root.
Manacà.
Mango Bark.
Mango Fruit.
Manzanita Leaves.
Mercury Weed.
Mistletoe.
Mountain Sage.
Musk Root.
Paraguay Tea (Maté.)
Pulsatilla.
Quebracho Bark.
Quinine Flower.
Rhus Aromatica.
Sabbatia Campestris.
Sandal Wood.
Sarracenia Flava.
Sassy Bark.
Saw Palmetto.
Shepherd's Purse.
Sierra Salvia.
Sour Wood Leaves.
Stylosanthes.
Sundew.
Thapsia Garganica
Tomato.
Tonga.
Trumpet Plant.
Urechites Suberecta.
Ustilago Maidis.
Vaccinium Crassifolium
White Vervain.
Wild Bergamot.
Yerba Buena.
Yerba del Manza.
Yerba Reuma.
Yerba Santa.

SPECIALTIES.

Normal Liquids.
Pills of Quinine, Cinchonidine and Quinidine *simple.*
Oleates.
Soluble Elastic Capsules.
Hard Filled Capsules.
Iodoform Bougies.
Pepsins.
Pancreatins.
Empty Capsules.
Cascara Cordial.
Warburg's Tincture.
Chlor-Anodyne.
Dialyzed Iron.
Extract Witch Hazel.
Liquor Acidi Phosphorici.
Solution Sclerotic Acid.
Compound Cerebral Sedative.
Ozonized Aromatic Liquid
Solution Chloride of Bromine Comp.
Conc. Tincture Lippia Mexicana.
Conc. Tincture Hoang-Nan.
Emulsion Chian Turpentine.
Sugar Test Flasks.
Cod Liver Oil and Emulsion.
Nitrite of Amyl Pearls.
Sanguis Bovinus Exsiccatus.
Aromatic Troches.
Compressed Troches.
Flavored Lozenges.
Lozenge Urns.
Medicated Lozenges for retailing.
Pills for retailing.
Fine Chemicals, Alkaloids, New Drugs, etc.
Pressed Herbs.

Manufacturers' and Producers' Agents for

Chamberlain's Utero-Vaginal Syringe.
The Indispensable Cup Syringe.
Dr. Wilson's Eureka Abdominal Supporter.
Lansing's New Mica Labels.
Reymond's Patent Capsule Filler.
Portland Respiratory Brace.
Davenport's Unique Capsule Filler.
Non-Humanized Vaccine Virus.
Sargent's Patent Drawer Pulls.

FACTS

Relative to the Connection of

PARKE, DAVIS & CO.

With the Introduction of Various

NEW VEGETABLE THERAPEUTICAL AGENTS.

TO THE MEDICAL PROFESSION.

Owing to the continued misrepresentations of representatives of competing houses, with regard to our policy in developing the hitherto unexplored Medicinal Flora of the world, we ask the privilege of placing before you the facts of the case from our point of view.

In the first place, we desire to place ourselves on record, as endeavoring to remove from pharmacy any action which may tend to render inharmonious its relations to the medical profession. As a part of this policy, we have ourselves never taken out any copyright, trade-mark, or patent, or made use of any secret formula with relation to any medicinal preparation or combination issued by us.*

We have also since the year 1877, used what influence we could bring to bear upon the medical profession in its various conventions, to adopt such an addition to its Code of Ethics as will render it unethical for any physician to prescribe any pharmaceutical preparation protected by copyright, trade-mark, patent, or secret formula. (Printed matter covering the records of the patent office and various medical opinions upon this subject, will be forwarded free to anyone making application to us for our printed matter upon the subject of trade-mark remedies.) This action was taken in the anticipation of purifying pharmacy for the benefit of science and humanity.

SECOND. We have written and published over our signature in the various medical journals of the United States, a platform setting forth our relations individually to the medical profession, and pledging ourselves to maintain for all future time the position which we have assumed.

*Reference has been made by interested parties desirous of defeating the intent of this statement, to a copyright taken out by Parke, Jennings & Co., our predecessors, upon the 31st day of March, 1871, upon the label of a preparation called Chlor-Anodyne. Would say that this action was taken in the early history of our business, and had no reference to any protection excepting against the action of a partner at that time retiring from our concern. We have since published to the medical profession a statement, which we now reiterate, that we claim no rights whatever under this copyright, leaving any competitor free to manufacture the article and under the same name, if he deem it advisable. Further, we have written to the Librarian of Congress under date of March 18, 1881, requesting him to void the copyright.

THIRD. In our position of manufacturing pharmacists we have confined ourselves wholly to the manufacture and sale of pharmaceutical products, which bearing our label throughout the land, are calculated to raise or lower our reputation, according to their appreciated value in the hands of the profession. When it is considered that we have invested a large amount of capital in this business, it must be assumed that we cannot jeopardize such capital by allowing our reputation to suffer through the issue of inferior preparations of any kind, and if such issue occur it is through causes beyond our control, with due reference to the variation in the quality of material obtainable.

FOURTH. Our Laboratory is very extensive, and equipped with costly apparatus of the most improved pattern adapted to our purposes. Our different departments are under the charge of skilled employés, and our sole intent is to offer the medical profession medicinal preparations which cannot be excelled in point of reliability and uniformity. A leading policy in our business is to obtain crude material of the best quality. For this purpose we have agents in the various markets of the world who are under instructions from us always to purchase the best of material irrespective of price.

FIFTH. Relative to our policy of introducing new remedies, referred to in the opening clause of this circular, we beg to state the case as follows: That our action is primarily based upon what may be deemed satisfactory testimony with regard to the action of a new remedy obtained by us, either through correspondence with reputable physicians, or from the articles published from time to time in the various medical journals of the world. When a remedy is brought before us, seemingly of sufficient merit to warrant its trial by the medical profession, we send a special representative, well qualified in botany, medicine and materia medica, to the country to which the plant is indigenous, with instructions to obtain for us a supply, of which there can be no question as to its identity. In undertaking these enterprises we assume all the financial risk thereof. When the drug is received it is carefully manipulated in the analytical department of our laboratory, with a view to ascertaining its characteristic chemical properties. It is then manufactured into a pharmaceutical form, based upon a formula drawn from scientific deductions. We then place large quantities of this material, free of expense, in the hands of the medical profession individually, and with the various public hospitals of the metropolitan centers. This action involves us in a large outlay, and our returns are wholly due to the reports which accrue therefrom. If the drugs are pronounced unsatisfactory and worthless, the medical profession have sustained no loss excepting the time consumed in making the experiments, while we ourselves must bear the expense incidental to the operation. If the results are favorable, we in time obtain returns which will compensate us for the original outlay. Inasmuch, however, as these drugs are only protected so far as commercial enterprize may be considered, and not by the government in the way of patent, trade-mark or copyright, every article is open to competition as soon as a competing house is willing to take the risk incidental to the collection of a supply of the crude material.

SIXTH. It is self-evident that unless full information relative to all our valuable work in Pharmacology be published for the benefit of science it will be lost to the world. For the purpose, therefore, of protecting the literature of therapeutics which depends upon pharmacy for the preparation of medicine used in the treatment of disease, and thus to guarantee the employment of the names of the articles upon our list in medical text books, we have adopted the plan of publishing full information concerning them in the form of annual reports to the Smithsonian Institute at Washington, where they will be found on file in the libraries of that institution.

With regard to the results of the experimental trials by the profession, of each article, we pledge ourselves to publish reports as submitted, whether favorable or unfavorable, and point to our record in the past as an evidence of the faithful fulfillment of this pledge. In order to make our position clear we would ask your attention to the following instances, which we cite:

Eucalyptus Globulus.—Our attention was called to this drug in 1870 by the various printed references thereto in the medical and pharmaceutical press of America and Europe. At that time the drug was wholly unknown in America excepting to a few individuals. Our first purchase of the article was to the extent of ten pounds in the New York market, at a cost of $1.75 per pound, gold. The full amount of this purchase was distributed to physicians in the way of specimens for trial, accompanied with what printed references thereto we had been previously able to collate from the medical journals. A demand springing up from the distribution of the circulars, for a larger supply on trial, we purchased 25 pounds more, (the entire stock at that time in the New York market), at a similar rate, which was all distributed free of cost to the profession. A gradually increasing demand resulting therefrom after the publication of these results, induced us to open direct correspondence for the importation in large supplies of this leaf. The result has been, that through our effort *Eucalyptus Globulus* has become a staple remedy of importance in the hands of the physicians and hospitals of the United States, to such an extent as to warrant its importation in the New York market in large quantities, the price having been reduced for a prime article as low a 7 cents per pound. When this price is compared with the rate at which we first purchased the article, the tendency of our effort in this direction will be at once clearly seen. At the present day all pharmaceutical manufacturers offer and sell a fluid extract of this drug freely to the profession.

Californian New Remedies.—A few years since we were largely interested in developing the medicinal flora of the Pacific coast, as a result of which *Yerba Santa, Berberis Aquifolium, Rhamnus Purshiana* (*Cascara Sagrada*), *Grindelia Squarrosa, Grindelia Robusta* and *Yerba Reuma* were placed before the medical profession. Information with regard to the greater number of these drugs was received by us through the late Dr. Bundy, an electic physician of Calusa, Cal. Information with regard to *Grindelia Robusta* was received through Dr. W. P. Gibbons, a prominet physician of Alameda. In 1878, for local reasons, a

paper was read before the Alameda County Medical Society by Dr. W. P. Gibbons, making a severe attack upon Dr. Bundy, the spirit of which was, first, that Dr. Bundy was an eclectic; second, that any remedies that he had introduced were for this reason unworthy the attention of the medical profession; and, third, that certain remedies, among which was *Cascara Sagrada*, did not exist under any certain name on the Pacific coast, and were, therefore, evidently intended to be used as an imposition upon the medical profession. This paper, afterwards published in the October number of the *Pacific Medical and Surgical Journal*, was used by our competitors to carry the impression to the medical profession that we had ourselves been engaged in some dark scheme for taking advantage of our patrons. Although this matter has been fully answered in the past, and understood by those interested in the subject, we prefer to state here, in justice to Dr. Bundy and ourselves, that in the first article written by Dr. Bundy, which appeared in *New Preparations*, January 15th, 1878, he distinctly stated with regard to *Cascara Sagrada* as follows: "A description of the *Cascara* I am unable to give at this time, but suffice it to say it is a shrub. In due time its botanical name will be known." Certainly no attempt at deception was herein covered. In his original paper, published in the October, 1878, number of the *Pacific Medical and Surgical Journal*, Dr. Gibbons stated with reference to *Cascara Sagrada*, "There is no such plant known to any botanist on the Pacific coast." The *Pacific Medical and Surgical Journal* of January, 1879, states editorially, "Cascara (bark) Sagrada (sacred) is the common Spanish name for Rhamnus Purshiana, and means simply, sacred bark."

It seems hardly necessary for us to bring up this subject again, and our apology for making reference thereto is the continued misrepresentations referred to, which are made to our discredit. If any one feels sufficient interest in the matter to apply to us for printed matter, with regard to further information relative to the Cascara Sagrada controversy, we shall be pleased to send him a full record, which may prove of interest.

Cascara Sagrada to-day is used to an enormous extent through professional sources, which in itself is a sufficient reply to any assertion which may have been made by its earlier opposers, who, from the very nature of the case, knew nothing of its merits.

Jamaica Dogwood.—Our attention was originally called to this drug by professional correspondents, but the only reference thereto which we could find in standard works of materia medica was in the appendix of Wood & Bache's Dispensatory. Believing the article to have merit, we wrote to business correspondents and to the United States Consul in Kingston, Jamaica, with a view to obtaining a supply. We were unable, however, to obtain any satisfactory results therefrom. A special representative was finally sent to that island, and under his personal supervision an ample supply was obtained for our purposes, and the favorable reports which have resulted from its thorough test have established the remedy on a permanent basis. In this connection we

call attention to the fact that the physiological investigations of Dr. Ott, which appeared in the *Archives of Medicine*, February, 1881, p. 69, and in the Detroit *Lancet*, June, 1880, were produced at considerable expense to us in the way of furnishing material to the investigator. Researches with regard to its microscopical investigation by Mrs. Louisa Reed Stowell, of the University of Michigan, with the necessary wood-cuts, were obtained at our request and published at our expense. These facts are mentioned to establish our statement that we are disposed to give the profession all possible scientific information which can be obtained with regard to these various remedies.

Tonga.—At the suggestion of Dr. William Murrell, of London, personally, and on the strength of the published experience with Tonga given in the London *Lancet*, we dispatched an agent to the Fiji Islands, at a large expense, to obtain a supply of this drug, now on trial before the medical profession.

Quebracho.—We have published all obtainable information with regard to this drug, including a translation of a paper published in pamphlet form by Dr. Hansen, botanist at Erlangen, Germany, producing at great expense lithographic facsimiles of the original admirable engravings.

In conclusion we offer the following:

First. That we claim the confidence and commendation of the medical profession for our efforts in placing before them a large variety of drugs hitherto unknown, accompanied with the publication of expensive researches into their physiological, chemical and botanical history. We include in this list the following, in the order of their introduction: Eucalyptus Globulus, Guarana, Coca, Grindelia Robusta, Yerba Santa, Rhamnus Pu[illegible]iana (Cascara Sagrada), Berberis Aquifolium, Grindelia Squarrosa, Yerba Reuma, Kava Kava, Jaborandi, Jamaica Dogwood, Manaca, Boldo, Carobæ, Coto Bark, Cedron Seed, Rhus Aromatica, Quebracho, Ustilago Maidis, Corn Silk, Tonga and many others.

Second. Although it has been insinuated by competing houses that there was no truth in our statements that we had dispatched personal representatives to foreign countries to obtain many of these drugs, we beg to state here, over our signature, that we have three times dispatched an agent to Brazil in search of staple and new drugs indigenous to the Amazon region, and that in our interest this country has been penetrated to the extent of 3,500 miles consuming a period of at least eighteen months in the three visits.

That a direct representative of our house was sent to Mexico, consuming over four months in the mission delegated to him.

That we have three times dispatched a special representative to the island of Jamaica, consuming a period of over one year.

That we have sent a special representative to the Fiji Islands, 7,000 miles southwest from San Francisco, occupying a period of eight months, in search of Tonga.

That in search of Cheken and Boldo, the former being a new drug first recommended by Dr. William Murrell, of London, we dispatched an agent *via* Rio Janeiro and Buenos Ayres to Chili, who remained in that country six months in obtaining for us a supply of these articles.

That in the collection of medicinal plants from the Pacific coast we have depended for the most part upon the personal efforts of our own agents, who have superintended their collection in our interest.

THIRD. We call the attention of the medical profession to the fact that in pursuing this expensive system of obtaining our supplies, we assure them of the botanical identity and the medicinal quality of the preparations which we issue.

FOURTH. We ask the hearty co-operation of the medical profession with us in developing the properties of the various new remedies, in the hope that at least a few may be found of permanent benefit to science and humanity.

Parke, Davis & Co.

DETROIT, December 1, 1881.

7–13–83–5–5m

Sugar and Gelatin Coated Pills.

One of the greatest achievements of modern pharmacy is the use of sugar and gelatin in various forms to render medicines more sightly and to disguise their nauseous taste. This has given origin to the sugar and gelatin coated pills which are now used, almost exclusively, in place of the disgusting forms in which pills were dispensed in former times. By the coating all unpleasant associations are removed and pills are now considered one of the most eligible of all forms for the administration of medicine. This applies in a peculiar manner to the beautiful gelatin coated pills of the modern pharmaceutical art. Gelatin coated means coated with jelly; and the taking of pills in jelly robs them of all their terrors.

Our pills are made entirely by hand, from the finest materials, and are coated by a method avoiding the application of any degree of heat which could impair their efficacy. The formula in each instance is strictly followed, irrespective of cost, and the entire process conducted under scientific management and by improved methods. Particular care is taken to ensure the preservation of the drug.

For solubility, regularity of shape, and beauty of finish, they are excelled by none. A very important point in this connection we would beg to call to the attention of the profession, and that is that our pills, being coated while the mass is yet soft, will remain so for years. To be convinced of their extraordinary solubility it is only necessary to cut open a few of them, for instance quinine, cinchonidia, or blue pills, all of which, as usually found in the market, are hard and insoluble—and they will be found as soft as if just from the hands of the maker. Note also the rapidity with which the coating is dissolved in the saliva.

PINK GRANULES, SUGAR COATED.

—o—

These Granules are eminently adapted to supply the needs of physicians in such cases as require minute or frequently repeated doses. To relieve the complaints of children, they will be found efficient, convenient, and not repulsive to the patient. For the sake of beauty of appearance, and to distinguish them from our regular line of pills, we have applied a pink coating. In this respect they differ from a similar class of preparations known as "Parkules," which were originally introduced at an extravagant price, under the protection of a registered trade-mark. In fact, we have not protected by patent, copy-right or trade-mark, any of these Granules, but claim that all medicinal compounds, in use by the medical profession at large, should be issued upon a proper scientific and ethical basis, and as such should be free from all monopoly and protection by trade-mark or copy-right. It is the opinion, however, of the writer that a proper service to science (in "Parkules" or any other form) would be rendered by placing a similar or better line of preparations on the market under the name of Pink Granules, which is free to all competition. *Send for Price List.*

PARKE, DAVIS & CO.
DETROIT, MICH.

60 Maiden Lane and 21 Liberty St.,
NEW YORK.

We claim especial merit for our gelatin coated pills, having perfected our proces ses in every detail. They will be found free from the defects usual to this class of preparations and will recommend them selves for accurate manufacture, ready solubility and permanency. In finish they are unsurpassed. To illustrate their superiority in every respect we invite their subjection to any scientific test, or comparison with any other brand. Specimens will be furnished upon application.

Our list of both sugar and gelatin coated pills comprises most of the formulæ known to the profession, to which we have added many new and valuable combinations. We have endeavored to show sufficient reason why the profession in ordering pills for their patients are justified in specifying those made at our laboratory on their prescriptions. We would therefore suggest that physicians who wish to secure the advantages which we here offer should write the initials P., D. & Co. in brackets after the name of the pill ordered in prescribing.

We also devote a special department in our laboratory to the making and sugar-coating of private formulæ. Not less than 3,000 pills should be ordered of any private formula, as it is difficult to handle a smaller number to advantage in our coating apparatus. Requests for quotations will be promptly answered, and all private formulæ submitted to us held strictly confidential.

Our pills are put up for market in bottles containing 100 and 500. We will send pills in paper boxes, free of postage, to any address on receipt of price. Send for price list of 400 formulæ.

PARKE, DAVIS & CO.,

60 Maiden Lane and 21 Liberty Street, NEW YORK.

Manufacturing Chemists,
DETROIT, MICHIGAN.

CONCERNING FLUID EXTRACTS.

We are frequently made aware of the existence of serious misapprehension in the minds of some very worthy physicians, and even druggists, in regard to the functions and properties of fluid extracts, particularly such as necessarily are and should be prepared with a strongly alcoholic menstruum. We have not far to look for the causes of these misconceptions, and it is in order to correct them that we desire to call the attention of [illegible] to some of the more serious fallacies presented by those preparations.

There is a large class of drugs of which we can name, for illustration, such individuals as buchu, eucalyptus, cannabis indica, aconite, yerba santa, cubebs, lupulin, savin, valerian and ginger, in which the activity of the drug depends entirely, either on the volatile oil, resin or alkaloid, or on their combination. [illegible] of the first named liquid is, of course, made imperative when it is proposed to manufacture a fluid extract which shall properly and fully represent the drug. A re-statement of the well-known general properties of these drugs might seem almost superfluous, considering that our pharmacopœias and text-books are so explicit on these points, were it not for the fact that a later education has been attempted, in a very sordid and unworthy interest, by which it is proposed to unlearn this knowledge, or at least to blind us to it by interposing apparent excellencies in so-called fluid extracts which a close inspection shows, however, to be superficial and unreal. We refer now to a class of manufactures with which some of our competitors are endeavoring to flood the market, and the claim of superiority, in regard to which is based principally on the fact that they will make a much *clearer mixture with aqueous liquids* than old-fashioned, honestly-made extracts. As an illustration of the principle involved we will select cannabis indica, whose active ingredient, of a characteristic resinous nature, is insoluble in water, soluble in strong alcohol, and soluble to but a limited degree in a mixture of the two, or diluted alcohol. Were we to prepare from sixteen troy ounces of this drug, a pint of fluid extract with strong alcohol, and from another sixteen troy ounces a like quantity of extract with diluted alcohol, we should certainly find that the extract prepared with *dilute alcohol* would make a *handsomer, clearer mixture with an aqueous liquid* than the one made with stronger alcohol. Need we ask why? Is it not self-evident that the preparation with dilute spirit is woefully deficient in the resinous ingredients of the plant, and that, therefore, a heavy discount must be made on its activity as compared quantitatively with the other? And yet this very class of fluid extracts is presented to the profession with claims for preference based entirely on this feature of their making a *handsome appearing mixture*, at the *sacrifice of medicinal activity!* While it has always been our desire to minister to the innate taste for the beautiful, which requires by preference an elegant preparation, and which stimulates all improvements which tend to that end, we cannot admit that a sacrifice of principle is ever justifiable in the attainment of that object. In the case of cannabis indica just referred to, we have always proceeded by using, in the first place, an assayed drug, known to contain sufficient resin to conform to an established standard, and then exhausting the drug with the proper liquid, strong alcohol.

Our preparation, therefore, *will*, and *should make a turbid mixture with water or aqueous liquids*, from separation of the resin which is insoluble in such fluids. The extent to which the resin separates, and renders water turbid, may be even used as an approximate test of the strength of the preparation; for it is very evident that the more resin, oleoresin or other substance insoluble in water, is present in the alcoholic liquid, the greater will be the amount separated when this is thrown into water, and the greater, therefore, the consequent turbidity.

These remarks will apply equally to all the drugs mentioned as members of this class: so we need, therefore, not multiply instances to impress a fact which becomes self evident when the premises are taken into consideration. We have enumerated but a few of the drugs whose virtues are constituted so as to require the use of a strongly alcoholic liquid for extraction, and likewise a liquid of the same composition for holding these principles in solution after their separation from the parent drug.

In view of these facts, there is then serious mischief threatened in the introduction of fluid extracts which from poverty of spirituous contents, although possessing a handsome appearance and other apparently desirable properties (particularly a low price), do not act handsomely, and besides bring about one vicious result:—they lead to the employment of larger doses, for it does not take the prescriber long to discover that his patient can bear larger and still larger doses with impunity, and in fact needs such apparent over-doses to produce the desired effect. Let such a prescriber, however, obtain a conscientiously prepared extract in place of the one he has been using and give the same doses, and, curiously enough, his spleen is usually vented on the really good representative of the drug for having produced unlooked for, or perhaps even [illegible] and thus [illegible] instead of a perverted education and misplaced confidence, receives the blame.

We think it will need but little argument to convince those who have had the least experience, that of different [illegible] that one should certainly have the preference in which exactness of dose is secured, by prescription for minims, while the other which combines [illegible] uncertainty of dose should be as much avoided.

Now, in regard to the method of administration of this class of fluid extracts, we desire to make a few suggestions. In accordance with the proposition that that method should have the preference by which exactness of dose is secured, we recommend, where it is absolutely necessary to dilute such a fluid extract prior to the moment of administration, the employment of a viscid liquid for this purpose, such as mucilage, syrup or glycerine. Much better, however, is the method of dropping the *dose, at the moment it is needed*, into water, milk or other diluent, and administering while the portion precipitated, and insoluble in water, is still in a *finely suspended condition, and before its particles have had time to separate and coalesce*. This latter method renders impossible the gathering of such separated resinous or oily particles into a clot, which may, and occasionally does, convey in one dose the active and often powerful ingredient intended for distribution among a much larger number of doses, thereby introducing the element of uncertainty and risk in the administration of the remedy.

NORMAL LIQUIDS.

A Class of Superior Assayed Fluid Extracts.

ONE CUBIC CENTIMETRE IS EQUIVALENT TO ONE GRAMME OF DRUG OF STANDARD STRENGTH.

We call attention to a new line of pharmaceutical preparations which we have introduced as a refinement upon the familiar fluid extracts. The growing popularity of the class of preparations last named is evidence that the introduction of reliable concentrated solutions of the active ingredients of vegetable drugs, has been a step in the right direction. We need not here rehearse the advantages possessed by these preparations, not only over the time honored infusions and tinctures of the older pharmacopœias, but even over the crude drugs which they represent. Attention has recently been called in an editorial article in the Therapeutic Gazette (Feb. 1882) to a serious defect which is common to all galenical preparations —infusions, decoctions, tinctures, etc.—and which has not been remedied in even the fluid extract. We allude to the want of uniformity in strength, necessitated by variations in the proportion of active principle contained in the crude drug itself. We quote from the article referred to: "When the physician prescribes .008 grm. (⅛ grain) of morphine, he knows exactly what result to expect from the dose, for he is dealing with a definite chemical compound. When he orders .065 grm. (1 grain) of opium, he cannot count with the same certainty upon the effect, for, in spite of the standards adopted already in regard to this powerful narcotic, the opium dispensed may contain eight or it may contain sixteen per cent. of morphia. Other drugs—among them notably those upon which the physician relies for producing prompt and powerful effects—vary even more widely than this. Yet the books state the dose of the drug as a fixed quantity, and the physician prescribes accordingly—often to be wholly disappointed in the effect he hoped to produce.

"In a majority of the vegetable drugs, indeed, no such scientific exactness in dose is required. Such drugs as dandelion, gentian, eucalyptus, etc., may be given in widely varying quantities without any observable difference in the effects produced. If the drug is of fairly good quality, as judged by obvious physical properties, it may be accepted as of standard strength, and administered in the doses which the books recommend. With powerful drugs like aconite, belladonna, colchicum, etc., however, exactness in the dose is a matter of the utmost consequence, if they are to be employed in a rational and scientific manner."

The NORMAL LIQUIDS are introduced to remedy this great evil. They are simply fluid extracts made by assay of such a strength that one cubic centimetre is equivalent to one gramme of a drug of *standard strength*. In each case this standard is fully stated on the label of the liquid.

As in the chemists' normal solutions, one litre contains one chemical equivalent, expressed in grams of the reagent, so in these NORMAL LIQUIDS one litre contains the therapeutic equivalent of one kilogram of a good drug.

Since the pharmacopœia does not at present furnish any standard of strength for most even of the more active drugs, we have adopted provisionally a standard for these NORMAL LIQUIDS based partly upon the statements of the best authorities, partly upon numerous assays of samples of the various drugs in question. Wherever it is practicable, we have adopted a standard based upon the quantity of the alkaloid contained in an average sample of a drug of good quality. Much remains yet to be done in the way of simplifying and perfecting methods of assay of the various drugs, but sufficient progress has been made in this direction to warrant us in taking the initiative in this important movement in the interest of scientific therapeutics.

The committee to which was entrusted the revising of the pharmacopœia of 1880 have wisely, as we think, adopted the metric system of weights and measures in all formulæ for fluid extracts. The system commends itself in any case by its simplicity, and its adoption facilitates materially the calculations involved in an assay. Accordingly, we have not only adopted it in the manufacture of these preparations, but we have followed it further in putting these goods upon the market in packages of 1 litre, ½ litre and ¼ litre.

We still follow the common practice of putting up fluid extracts, after the pharmacopœial standard, by measure in packages containing ¼, ½, 1 and 5 pints respectively. The NORMAL LIQUIDS also will be put up by measure, as they are manufactured, so that each litre represents one kilogram of a drug of standard strength. They are sold in packages containing ½ litre, ¼ litre and 2 litres (bulk) each.

The ratio of the metric measures to those in common use is as follows:

1 litre	= 33.81 fluidounces	= 2.112 pints.
½ "	= 16.9 "	= 1.056 "
¼ "	= 8.45 "	= .528 "

The decimal system of weights and measures is immeasurably superior to all others in its simplicity, and is the only one which can be defended on scientific as well as utilitarian grounds. In this system weights and measures have a common unit. The correspondence of these with one another, and with our own unscientific system, is shown below:

Apothecaries' Measure.		26.41 gal.	2.641 gal.	2.113 pt.	3.38 fl. oz.	2.71 fl. drm.	16.23 m.	1.623 m.	.162 m.	.016 m.
Avoirdupois Weight.	2204.6 lb.	220.46 lb.	22.05 lb.	2.205 lb.	3.527 oz.	.353 oz.	15.432 gr.	1.543 gr.	.154 gr.	.015 gr.
Apothecaries' Weight.	2679.2 lb.	267.9 lb.	26.8 lb.	32.15 oz.	3.215 oz.	2.572 dr.	15.432 gr.	1.543 gr.	0.154 gr.	.0154 gr.
Decimal Liquid Measure.	Kilolitre (Stère).	Hectolitre.	Decalitre.	Litre.	Decilitre.	Centilitre.	Millelitre.			
Decimal Measure.	Cubic Metre.			Cubic Decimetre.			Cubic Centimetre.			
Decimal Weight.		Myriogramme.	Kilogramme.	Hectogramme.	Decagramme.	Gramme.	Decigramme.	Centigramme.	Milligramme.	

It will be remembered that the fluid extracts of the present pharmacopœia do not represent the drug from which they are prepared strictly in the proportion of minim to grain, since one minim of water weighs, not one grain, but 0.95 gr. One fluidounce of the fluid extract represents, not as formerly, one Troy ounce of drug, but a quantity equal in weight to one fluidounce of water, viz., 455.69 grains.

The following synopsis shows the relation of the fluid extracts made after the present formulæ to those of previous pharmacopœias, and illustrates at the same time the confusion that must arise in attempting to use our ordinary system of weights and measures:

Weight of Drug.	Measure of Fluid Extract.	
	Phar., 1880.	Phar., 1870.
100 grains of drug make.	100 CC.	94.9 CC.
100 Troy ounces of drug make.....	105.3 fluid ozs.	100 fluidounces.
100 avoirdupois ounces of drug make.....	96 fluidounces.	91.1 fluidounces.

The change in strength amounts to only about 5 per cent., which does not materially alter the dose of even the powerful remedies. If the difference in strength of different samples of the same drug, often equally good to all appearances, were no greater than this, there would be no occasion for these new standard preparations. Unfortunately the drug is liable to a variation sometimes of 50 to 100 per cent. We are confident that the time is not far distant when the pharmacopœia itself will prescribe within rigid limits the strength of all pharmaceutical preparations of powerful drugs.

The standards of strength which have been adopted for the more important of our normal liquids are given in the annexed price list.

PRICE LIST OF NORMAL LIQUIDS.

Prices given are *per litre* (2.112 pints) in bottles of *½ litre* each. An additional charge of 10 cents *per litre* will be made when desired in the *¼ litre* bottles, and a reduction of 10 cents per litre when ordered in bulk (2 litre bottles.)

Liquid Aconite Root, Normal.....$ 3 00

Aconite root contains a proportion of alkaloid as estimated by Dragendorff's method varying from 0.2 to 1.125%. We have adopted as standard 0.75% of alkaloid. The alkaloid contained in 10 c. c. of the NORMAL LIQUID requires 2.8 c. c. of Mayer's volumetric solution for complete precipitation. We also require that this liquid shall answer to the physiological test lately described by Dr. Squibb.

Liquid American Hellebore, Normal.....$ 3 30

American Hellebore of good quality contains about one per cent. of alkaloids. Ten c. c. of the NORMAL LIQUID require for complete precipitation of the alkaloids 3 c. c. of Mayer's solution.

Liquid Belladonna Leaves, Normal.....$ 3 30

Belladonna leaves contain a proportion of Atropine varying from 0.25 to 0.75%. We have adopted as a standard 0.44% (National Dispensatory p. 275). The alkaloid contained in 10 c. c. of the NORMAL LIQUID requires for precipitation 3.52 c. c. of Mayer's volumetric solution.

Liquid Belladonna Root, Normal.....$ 3 30

Belladonna root contains a proportion of Atropine varying from 0.25 to 0.75%. We have adopted the same standard as for Belladonna leaves, viz.: 0.44%. The alkaloid contained in 10 c. c. of the NORMAL LIQUID requires for complete precipitation 3.5 c. c. of Mayer's volumetric solution.

Liquid Cannabis Indica, Normal..... $ 4 00

Ten c. c. of the NORMAL LIQUID evaporated to complete dryness at 105° C. leave a residue weighing 1.25 Gm.

PER LITRE.

Liquid Cinchona Calisaya, Normal.....$10 50

Good Calisaya bark contains at least 2% of Quinine, U. S. P., 1880. The Calisaya of the market contains from 0.0 to 3 % and upwards of this alkaloid. We have adopted the U. S. P. standard of 2 %. Ten c. c. of the NORMAL LIQUID contain 0.2 Gm. Quinine (anhydrous).

Liquid Cinchona Red, Normal.....$10 50

Red Cinchona bark contains a proportion of alkaloids varying from 2 to 6 %. We have adopted as a standard 3.5 % total alkaloid. Ten c. c. of the NORMAL LIQUID yield 0.35 Gm. mixed alkaloids (anhydrous) of which no more than 0.15 Gm. is Cinchonine.

Liquid Colchicum Root, Normal $ 3 00

Colchicum root contains a variable amount of alkaloid according to the time of gathering. A good article when treated according to Dragendorff's process of assay indicates 1.25 % of alkaloid, and this we have provisionaliy adopted as a standard. Ten c. c. of the NORMAL LIQUID require for complete precipitation in a strongly acid solution, 4 c. c. of Mayer's volumetric solution.

Liquid Colchicum Seed, Normal.....$ 3 75

For Colchicum seed we have adopted the same standard as for Colchicum root. Ten c c. of the NORMAL LIQUID require for complete precipitation 4 c. c. of Mayer's volumetric solution.

Liquid Conium Seed, Normal.....$ 3 30

Conium seed contains a very variable amount of alkaloid. The statement of Stillé & Maisch may be provisionally accepted as a basis for this standard, viz.: the ripe undried seeds contain 0.8 % of Coniine. Ten c. c. of the NORMAL LIQUID require for complete precipitation of the alkaloid 7 c. c. of Mayer's volumetic solution.

Liquid Ergot, Normal.....$ 4 40

The value of Ergot is believed to depend mainly upon the amount of Sclerotic Acid and Scleromucin it contains. We have hence adopted as an arbitrary standard a fixed amount of organic acid estimated by a volumetric solution of Lead Acetate. Ten c. c. of the NORMAL LIQUID require for complete precipitation 100 c. c. of a solution containing 1 % of crystallized Lead Acetate.

Liquid Foxglove, Normal.....$ 3 00

No satisfactory process of assay having been as yet devised, we adopt provisionally for this preparation a certain proportion of extractive matter. Five c. c. of the NORMAL LIQUID evaporated to complete dryness at a temperature of 105° C. leave a residue weighing 1 Gm.

Liquid Gelsemium, Normal.....$ 3 00

This preparation is made from the dried drug, and is consequently much stronger than the fluid extract (unofficinal) made from the green drug which is so largely used. It corresponds with the fluid extract of the Pharmacopœia, but is brought to a fixed alkaloidal strength as indicated by the potasio mercuric iodide solution. Ten c. c. of the NORMAL LIQUID require for complete precipitation 3 c. c. of Mayer's volumetric solution.

PER LITRE.

Liquid Henbane, Normal.....$ 3 50

Henbane contains an amount of alkaloid varying from 0.05 to 0.25 %. A good drug should yield about 0.18 %, and this we adopt for our standard. Ten c. c. of the NORMAL LIQUID require for complete precipitation 1.3 c. c. of Mayer's volumetric solution.

Liquid Ipecac, Normal..... $ 8 25

Ipecac contains a proportion of Emetine varying from 1 to 3.5 %. A good drug contains at least 1.5 % of the alkaloid as estimated by Mayer's reagent. This forms the basis for our standard. Ten c. c. of the NORMAL LIQUID require for complete precipitation 8 c. c. of Mayer's volumetric solution.

Liquid Mandrake, Normal.....$ 3 00

Mandrake root yields commonly between 4 and 5 % of Podophyllin, of which about 45 % is the Podophyllotoxin of Podwissotzky. We have adopted for our standard 2 % of Podophyllotoxin. Ten c. c. of the NORMAL LIQUID yield when concentrated and poured into 20 c. c. of cold water a precipitate which, when carefully washed and dried at 100° C., weighs .425 Gm.

Liquid Nux Vomica, Normal..... 3 00

Nux vomica contains from 1 to 3 % of alkaloids, of which about one-half is Strychnine. Most specimens of fluid extract nux vomica which we have assayed contain less than 0.75 % of total alkaloids. We have adopted the rather low standard of 1.5 % of alkaloids for the NORMAL LIQUID because this is the maximum proportion obtained from the drug in the galenical preparations, when made with the greatest care. Ten c. c. of the NORMAL LIQUID contain .15 Gm. of mixed alkaloids, readily estimated by adding a few drops of dilute sulphuric acid, evaporating off the alcohol, washing the residue with pure ether, and taking it up at the same time with water, and finally treating the aqueous solution with caustic soda, and shaking with a mixture of ether and chloroform.

Liquid Rhubarb, Normal.....$ 5 50

No simple and satisfactory process of assay being yet devised for this drug, we adopt as a standard for the NORMAL LIQUID 30 % of extractive matter. Five c. c. of the NORMAL LIQUID evaporated to dryness at a temperature of 105° C. leave a residue weighing 1.5 Gm.

Liquid Stramonium Leaves, Normal.....$ 3 00

Stramonium leaves contain from .25 to .5 % of alkaloid. We have adopted provisionally as a standard .375 %. Ten c. c. of the NORMAL LIQUID require for complete precipitation 3 c. c. Mayer's volumetric solution.

Liquid Stramonium Seed, Normal.....$ 3 00

Stramonium seed contains about 0.35 to 0.4 % of alkaloid. We have adopted, as for the leaves, a standard of .375 %. Ten c. c. of the NORMAL LIQUID require for complete precipitation 3 c. c. of Mayer's volumetric solution.

PARKE, DAVIS & CO.,

Manufacturing Chemists,

Manufacture a full line of standard pharmaceutical preparations, including those that are officinal in the United States and foreign pharmacopœias, and such as are not thus recognized but whose value is attested by the experience of the medical profession. These preparations comprise:

FLUID EXTRACTS,
SUGAR-COATED PILLS,
GELATIN-COATED PILLS,
SOLID EXTRACTS, ABSTRACTS (Powdered Extracts,)

PINK GRANULES,
CONCENTRATIONS,
EFFERVESCING SALTS,
MEDICATED LOZENGES.
ROLL PLASTERS,
SPREAD PLASTERS,
GLYCEROLES.

These preparations are made after the latest and most approved methods and are in every respect up to the recognized standards of pharmaceutical excellence and medicinal strength.

GERMAN TINCTURES,
ELIXIRS,
WINES,
SYRUPS,
COLLODIONS,
OINTMENTS,
CERATES.

SPECIALTIES.

NORMAL LIQUIDS. By this name are known assayed fluid extracts. They comprise such drugs as have a distinct active principle in the form of an alkaloid or resinoid, and are guaranteed to be of uniform strength and not subject to variations in the strength of the crude drug. They are as definite and constant in their strength as morphine, quinine or other alkaloids, and are a desideratum in medicine.

EMPTY CAPSULES. These capsules are made of the finest French gelatin, and challenge comparison in all those particulars which commend this unequaled device for the exhibition of bitter and nauseous drugs.

SOLUBLE ELASTIC AND HARD FILLED CAPSULES. The former of these are so soft and elastic that their walls may be approximated without rupture and yet regain their original shape when the pressure is removed. As a means of administering nauseous oils, balsams, etc., these capsules are unequaled. The list comprises the majority of such balsams and oils in use, and the capsules range in size from 10 minims to a half ounce.

NEW REMEDIES. The enterprize of introducing to the profession drugs, particularly from the vegetable kingdom, which had escaped attention, may be said to have been inaugurated by Parke, Davis & Co. They were the first to conduct such introduction after a system, and are, indeed, still the only house thus intelligently and systematically engaged. They are, by common consent, the headquarters for all matters pertaining to the newer materia medica. For full information on this subject send to them for literature.

Parke, Davis & Co.'s list of specialties comprises, in addition to the above, the following:

PEPSIN, PANCREATIN,
CASCARA CORDIAL,
CHLOR-ANODYNE,
NITRITE OF AMYL
PEARLS.

Especial attention given to private formulæ for pills ordered in lots of 3000 or upwards.

SANGUIS BOVINUS EXSICCATUS, PRESSED HERBS, DIALYZED IRON, COMPRESSED TROCHES.

WARBURG'S TINCTURE, OZONIZED AROMATIC LIQUID,
SOLUTION CHLORIDE OF BROMINE
COMPOUND, ETC.

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CONCENTRATIONS.

Under the above name, derived from commercial sources, we here consider a class of pharmaceuticals comprising about 60 distinct agents, from which we select the following as types:

Aconitin, Atropin, Barosmin, Cimicifugin, Euonymin, Hydrastin, Scutellarin, Irisin, Jalapin, Leptandrin, Stillingin, Lupulin, Podophyllin, Prunin,

If we trace the history of concentrations, we shall find that they had their origin in the demand on the part of physicians, especially of the eclectic school, for vegetable remedies concentrated in strength, and in the form of permanent powders, in order that the practitioner might carry in his pocket or saddle case a well assorted supply of remedies for administration at the bedside of the patient. Country practitioners were at that date compelled to ride over a wide circuit, frequently many miles from any drug store. Hence they were under the necessity of carrying with them all the conveniences for dispensing any extemporaneous prescription. As a substitute for scales the knife blade was employed, and this, when applied to the dosage of concentrations or resinoids, so-called, answered all purposes in practice. This class of preparations then was naturally introduced to notice by manufacturers under the immediate auspices of the eclectic school of medicine, but their use extended rapidly to physicians of other schools, who were not slow to perceive their unquestionable merits, so that now a well assorted line of concentrations appears upon the list of every general pharmaceutical manufacturer. It is to be regretted, however, that in this class of preparations which have so much to recommend them to the attention of physicians, especially in rural practice, so unscientific and confusing a nomenclature has been adopted.

The nomenclature of concentrations, so-called, has been formed by adding the affix-*in* to the root of the botanical name of the plant from which it is derived, thus conveying the impression that the preparation is the active principle of that plant, since chemists had already adopted this method of designating principles peculiar to any plant or genus of plants. Among chemists it is now customary to distinguish further between alkaloids and neutral principles (glucosides, etc.,) by adding in the former case a final *e* to the termination.

The names which have been adopted for the concentrations are, therefore, either wholly inappropriate and misleading, or they have a dangerous similarity to those of the active principles themselves of the same drugs, of which they actually contain only 5 to 10 per cent. We do not hold ourselves responsible for the present nomenclature, and a radical change therein can only be made by concerted action between the manufacturers and the medical profession. We are so strongly impressed, however, with the danger of retaining names like atropin, easily confounded with those of powerful alkaloids, that we have ventured in such cases to print also on the labels of our own preparations, synonyms free from this most serious objection.

The U. S. Pharmacopœia has thus far recognized but one of the concentrations as officinal, viz., the resinoid podophyllin, under the name of resina podophylli, the resin of jalap being also a synonym for jalapin. The German pharmacopœia recognizes podophyllinum, without re-christening it.

The advantages offered by the concentrations over other preparations of vegetable drugs are sufficiently obvious. They are briefly: 1st, concentration of strength; 2d, the form of a permanent powder, 3d, convenience for dispensing at the bedside of the patient.

Valid objections are urged against some of them on the following grounds: 1st their unscientific nomenclature; 2d, the lack of any authoritative standard to which even their physical properties must conform. Preparations from different manufacturers bearing the same label are totally unlike in properties and composition, each one being a law unto himself. 3d, the attempt to include in this class of preparations drugs whose active principles are injured or even destroyed by the manipulations required to bring them into the powdered form. One enterprising manufacturer will proclaim himself the first to have offered an efficient concentration of a drug like cannabis indica, and immediately cannabin will take its place on every price list in the country. "If A. can do it, we can," appears to be the sum of their reasoning in the matter, and physicians are not to be blamed, if, after having committed to pharmacists the solving of practical problems like these, they accept without close questioning the results thus offered.

Concentrations admit of classification into six principal groups as follows:

1st. CONCENTRATIONS, properly so called. These are preparations of drugs containing some powerful alkaloid, or glucoside, which has been freed from the insoluble matter, and much of the inert extractive of the drug, but which remains generally in the same form of chemical combination in which it occurs in the drug, and is still accompanied by a large proportion of inert substance. The active principles themselves are so powerful that they cannot be given in doses exceeding 1-50 to 1-10 of a grain, and hence could not be dispensed at the bedside of the patient with the necessary accuracy. To obtain them in the pure crystallized state necessitates great expense in labor and loss of material through the process of purification. While the pure alkaloids are preferable in certain cases, as in the treatment of the eye, and in hypodermic medication, as a general rule in ordinary practice, less concentrated preparations, more easily and safely dispensed, and much less costly, are to be prefered. The concentration can be offered at a lower rate relatively than the purified alkaloid, because of the great labor and waste involved in the process of purifying the product. In some cases, indeed, the concentration is actually a more efficient preparation than the alkaloid, at least as generally offered in the market. Aconapellin (formerly Aconitin) may be cited as an example in point. It has been shown lately that the aconitina of some manufacturers is almost inert, and the variation in different preparations of the crystallized alkaloid has been so great that the U. S. Pharmacopœia has discarded it altogether from the list of officinals. A concentration, however, which represents the drug in the proportion of one to ten can be prepared without difficulty, and is an efficient preparation, and much less costly than Duquesnel's crystallized "aconitia" (nitrate) the only preparation in the market which consists of the unaltered active principle of aconite root.

2d. RESINOIDS. These preparations also merit the name of concentrations, since they consist of the active constituents of the drug, accompanied by comparatively little that is inert. They are prepared in general by precipitating a concentrated tincture of the drug with water. As typical examples of this class we may mention podophyllin, the resin of mandrake, and jalapin the resin of jalap, both of which are, however, officinal under the latter names. The class is one capable no doubt of considerable extension, since the medicinal virtues of numerous drugs reside in their resinous constituents. In the earlier days of concentrations it seems to have been erroneously believed that the plan adopted in making this class of preparations was almost of universal applicability, and many resinoids were put upon the market which were nearly or quite inert, the active constituent of the drug being soluble in water, and therefore excluded from the product. A better knowledge of the constitution of drugs, at least on the part of the more scientific manufacturers, has led to the correcting of these mistakes, and the resinoids are certain to hold a permanent and a prominent place among pharmaceutical preparations.

3d. ASTRINGENTS. It is a well known fact that the liquid preparations of astringent drugs are liable to gelatinize. This is particularly true of the fluid extracts, and hence permanent powders representing these drugs in a concentrated and soluble form have deservedly met with popularity. The most important pure astringent on the list is doubtless geranin, but there are several others which combine with astringency, properties peculiar to the drug from which they are derived.

Notwithstanding their greater cost, physicians, as a rule, prefer the astringents of this class to the pure tannic or gallic acids, of which the former is harsh, the latter inefficient in its action. But the list of the pharmacopœia offers already considerable scope for choice, including as it does, kino, catechu, rhatany, and extract of logwood, any of which may be prescribed in the form of a powder, and the astringent "concentrations" must compete with these purely on their own merits, only with a certain disadvantage on the score of cost.

We do not forget, indeed, that costliness in a drug is sometimes the strongest point in its favor. For wealthy patients the physician must select remedies which are *recherché*, without regard to expense, and the wealthy patients would not have it otherwise. But for all that we do not feel that astringents like geranin are legitimately entitled to a place among concentrations.

4th. CONCENTRATED EXTRACTS. Under this head will be found the greater number of concentrations. We may mention as typical examples, leptandrin, cimicifugin, aletrin, helonin and populin. These are practically powdered solid extracts of the respective drugs they represent, deprived as far as possible, by the use of appropriate solvents, of inert extractive. In this sense they are truly concentrations.

Complaint is often made by pharmacists and physicians of the caking or hardening of these powders as evidence of want of skill in their manufacture. This is an accident to which some of them are liable if exposed to a damp air, or placed in too warm a situation. All powdered extracts are more or less hygroscopic, and should be kept in a cool place and in well corked bottles. Where these ordinary precautions are taken, the concentrations are no more troublesome in this respect than other powdered extracts. A preparation, indeed, which does not show a disposition to cake if exposed to a damp atmosphere in summer, may be looked upon with suspicion from that very circumstance, and will often be found to consist largely of sugar of milk or some similar inert diluent substance.

5th. OLEORESINS, BALSAMS OR OILS. As typical of this class we may mention stillingin, irisin and cannabis indica. This class should be discountenanced by all who have an interest in scientific pharmacy, as involving a contradiction of terms. An oleoresin can only be reduced to a powder by subjecting it to such a degree of heat as to destroy its character, or by adding an excessive amount of some inert absorbent powder. In either case the result is a preparation having little or no therapeutic activity, and unworthy the name of a concentration.

Inasmuch, however, as a demand exists for some of these preparations, we are compelled to supply them. We choose, therefore, the less of the two evils, and simply add to the oleoresin or oil, such a quantity of sugar of milk as may be necessary to produce from it a tolerably permanent powder.

6th. ALKALOIDAL PRINCIPLES. Commercial custom has relegated certain alkaloidal principles to this class, owing to the fact that they were prepared, like other concentrations, at the suggestion of eclectic physicians, and by processes so simple that it was a matter of accident, so to speak, that the product was a definite chemical compound, free from foreign admixture.

This class comprises the salts of the alkaloid berberina, under the misnomer hydrastin. We have for some time past labeled these preparations according to the correct chemical nomenclature, retaining their old names in our lists, and on the labels merely as synonyms.

In conclusion, we desire to say that, as manufacturers, our sole duty is to supply honestly the wants of the medical profession, of whatever school, affording them pharmaceutical preparations on which they can rely as representing the activity of the designated drug. As pharmacists, it is our place to criticise methods of manufacture that defeat the end proposed, and to substitute others by which that end may be reached. We may also use our influence to secure such changes in nomenclature as are demanded by the advance of scientific knowledge, and especially by considerations involving the safety of human life; further than that our responsibility is at an end when we have furnished to the medical fraternity such preparations as they deem efficacious in the treatment of the numerous ills which flesh is heir to.

PEPSIN.

AMONG the "physiological" remedies which have been of late so carefully studied and so widely employed by physicians, the first place in importance and in therapeutic utility is generally conceded to pepsin. That this is the digestive principle of the gastric secretion is generally known, and among the multitudes of dyspeptics in America there are few indeed who are not familiar with its most obvious medicinal use. That the remedy is an efficient one is attested by thousands of those who have found in it the relief they sought, but there are other thousands who will be as loud in condemning it as worthless on the best possible ground, that of their own experience.

We have not far to look for the reasons for such discrepancies in testimony. They lie largely in imperfect knowledge, on the part, sometimes, of the physician himself, of the properties of this now familiar remedy.

That pepsin is the active constituent of the gastric fluid is quite true, but it must not be forgotten that digestion is effected only in part in the stomach and by the gastric secretions. The special function of the gastric fluid is to convert albumen, fibrin and analogous compounds into the soluble albuminose; fatty and starchy foods pass on into the intestines where provision is made for their digestion. While these facts are familiar to the tyro in physiology, they are so often ignored in the use of pepsin vaguely "to aid digestion," that we have ventured to call attention to them here.

Pepsin is that digestive principle which dissolves the albuminoids and fits them for assimilation. But the food of different animals varies greatly in the kind and in the proportion of albuminoids it contains, and we must expect to find not only the details of the digestive mechanism, but the nature and composition of the various digestive fluids correspondingly modified. The pepsin prepared from the stomach of each animal will have peculiarities determined by the nature of the animal's diet.

PEPSINUM PORCI (Pig Pepsin).

Pepsin from the stomach of the hog, is, from the omnivorous habit of the animal, that which is best adapted—considering also the abundance of the supply—to replace any deficiency in the secretion in the human stomach.

Various methods are adopted for preparing the so-called pepsin for use. The British Pharmacopœia makes no effort to isolate the active principle, but employs simply the dried pulp scraped from the mucous lining of the stomach, and consisting, therefore, largely of foreign putrescible substances. When freshly prepared this affords a very active article, but it is liable to deteriorate with age, and is apt even when prepared with some care, to have a rank disagreeable odor. The process commonly adopted in this country is that of salting out the pepsin from an acidulated aqueous solution.—(E. Scheffer, 1872.) The product retains a considerable amount of salt, but it is not hygroscopic, and will keep for years with little loss of digestive activity.

Pure pepsin should have only a slight animal odor, should dissolve almost completely in acidulated water and should be capable of dissolving 400 times its weight of coagulated albumen under the conditions of the Pharmacopœia test.

Of the pepsins offered in the scale form, some are extremely hygroscopic, and are therefore prone to deteriorate.

TEST.—Put into a beaker or other suitable container 1-5 grain, accurately weighed, of the pepsin to be tested, with 2½ fluid ounces of pure water, temp. 100° F; add 15 minims of strong muriatic acid (sp. gr. 1.16) and 150 grains of coagulated albumen. The albumen must be that of an egg boiled 15 minutes, and must be reduced to a fine pulp by passing through a No. 30 sieve, or by trituration in a mortar. See that the albumen is diffused throughout the liquid; cover the beaker and place it where its temperature can be maintained constantly at 100°—105° F. At the end of six hours, remove the remaining albumen by aid of a strainer, dry it in a tared capsule at 215° F., until it ceases to lose weight. Weigh; multiply the amount by eight (albumen in the moist condition contains ⅞ its weight of water), and deduct the product from 150. The remainder multiplied by 5 will give the quantity of albumen one grain of the pepsin is capable of dissolving.

In case the pepsin does not dissolve the greater portion of the albumen, the experiment must be repeated, using double the amount of pepsin, or with a pepsin of doubtful value, time will be saved by making several simultaneous experiments, using ¼, ½, and 1 grain of the pepsin.

We offer this pepsin in the following forms:

Saccharated Pepsin (U. S. P.) 1880.—For ordinary use the saccharated pepsin of the U. S. P. (1880) is to be preferred. It is made from pure pepsin by adding pure sugar of milk in fine powder sufficient to bring the mixture to the standard strength which is adjusted so that one grain of the saccharated pepsin will dissolve 50 grains of coagulated albumen. It will be observed that this is a higher standard of strength than has hitherto been demanded of a saccharated pepsin, (viz., one grain to dissolve but 12 grains albumen); but the new standard, which is the only authorized one, will be at once adopted by all conscientious pharmacists in dispensing pepsin on physicians' prescriptions, and it is earnestly to be hoped that this preparation will very soon displace altogether the saccharated pepsin of the old low standard. We shall ourselves assume when saccharated pepsin is ordered that it is the officinal article that is meant, unless the order definitely specifies "commercial." Each variety of our saccharated pepsin is made by careful assay, and the strength is always distinctly stated on the label. Dose .032 to .160 grm. (½ to 2½ grains.)

Saccharated Pepsin (Commercial.)—The saccharated pepsin introduced in 1872 by E. Scheffer, was stated to be of such strength that one grain of it would dissolve 12 grains of coagulated albumen. This standard of strength has been generally adopted by manufacturers, although owing to variations in the mode of making the test, the actual strength of the commercial pepsin has varied widely. We supply, *on especial order only*, a pepsin made by assay of a strength corresponding to this old familiar standard. Dose .128 to .640 grm. (2 to 10 grains.)

Pure Pepsin.—This preparation of course contains a considerable proportion of mineral salts, especially of sodium chloride (common salt). We do not share the anxiety expressed by some manufacturers of pepsin, lest patients happening to take pepsin in combination with calomel shall suffer serious mercurial poisoning from the corrosive sublimate formed by the action of common salt and traces of hydrochloric acid contained in the pepsin. We feel ourselves justified in this indifference when we read that the normal gastric secretion contains for one part of pepsin not less than five parts of sodium chloride, besides the chlorides of potassium and ammonium, and even free hydrochloric acid. Dose .004 to .020 (1/16 to ⅓ grain.)

Of one thing we are sure, from numerous comparative experiments; no pepsin in the market surpasses ours in digestive activity, and none can better sustain the claim to purity, in the only sense in which that term can be applied to an article like pepsin. One grain of our *pure pepsin* is capable of dissolving 450 to 500 grains coagulated albumen under the conditions prescribed above. By varying these conditions this amount may be indefinitely increased, but the test thereby loses all its value as a measure of the real activity of the pepsin, and it must be borne in mind that uniformity in results in testing pepsin, can only be secured by the most rigid adherence to the conditions prescribed.

LACTATED PEPSIN.

This is a compound digestive powder in which there are associated all of the principal agents contributing to the process of digestion in its several stages. Each dose of 5 grains contains

Pepsin,	1 grain.
Pancreatin,	⅓ "
Lactic Acid,	½ "
Maltose,	¼ "
Diastase,	$\frac{1}{15}$ "
Hydrochloric Acid,	$\frac{1}{10}$ "

Whatever theories may be held as to the reaction of these agents upon one another, experience has shown the use of lactated pepsin to be attended with uniformly satisfactory results. The several constituents of this combination are separately so well known that the briefest allusion to their properties will suffice.

Pancreatin is essential to the digestion of starch and of fatty foods. The former it converts into soluble glucose, the latter it emulsionizes and at least in part decomposes. Pancreatin is thus seen to be of greater value in aiding the assimilation of carbonaceous food than pepsin, and patients accordingly may be expected to gain weight, and improve in general nutrition under its use. Diastase is very similar in its range of action to pancreatin. Lactic and hydrochloric acids are normally present in the gastric fluid, and only in their presence does pepsin exhibit its peculiar property of peptonizing albuminoids.

The lactated pepsin has proved very efficient in relieving the distressing symptoms of dyspepsia, and in a multitude of diseases in which malnutrition is a prominent feature, it paves the way to recovery by improving the digestion. It is particularly useful in this manner in consumption, in anæmia, chronic diarrhœa general debility, chronic constipation, and impoverishment of the blood.

SHEEP PEPSIN (Pepsinum Ovis.)

The pepsin procured from the stomach of the sheep is similar in general properties to that prepared from that of the pig, but has a characteristic odor suggestive of its origin. Since the food of the sheep is wholly vegetable, it is probable that this pepsin is better adapted to act upon vegetable albuminoids than that obtained from an omnivorous animal, and it is believed that in some forms of dyspepsia, and especially in the treatment of infants this pepsin will show itself more efficient than any other. We offer this pepsin in the pure and in the saccharated form.

Pure Sheep Pepsin.—When tested in the manner already described, one grain of this pepsin will dissolve 350 to 400 grains of coagulated albumen. Dose .005 to .025 grm. ($\frac{1}{12}$ to $\frac{1}{3}$ grain.)

Saccharated Sheep Pepsin.—This is made by assay of a strength corresponding with that of saccharated pepsin, U. S. P., so that one grain of it will dissolve 50 grains coagulated albumen. Dose .032 to .060 grm. (½ to 1 grains.)

LIQUID PREPARATIONS.

Liquor Pepsini, Solution of Pepsin, U. S. P.—One fluidounce contains 20 grains saccharated pepsin, U. S. P., equivalent to about 80 grains commercial saccharated pepsin. This new officinal solution is believed to be a more reliable preparation than any in which the menstruum is alcoholic. The dose is 2 to 4 cubic centimetres (½ to 1 fluidrachm), equivalent to 5 to 10 grains of the commercial saccharated pepsin.

This preparation being now an officinal one, we substitute it on our list for the concentrated liquid pepsin, which we have heretofore prepared, and which was about four times the strength of this.

Elixir of Pepsin.—Each fluidounce contains 10 grains saccharated pepsin, U. S. P., equivalent to about 40 grains commercial saccharated pepsin.

Elixir Pepsin and Bismuth.—Contains pepsin combined with ammonio-citrate bismuth.

Elixir Pepsin, Bismuth and Iron.—Contains pepsin combined with pyrophosphate of iron and ammonio-citrate of bismuth.

Elixir of Pepsin, Bismuth, Iron and Quinine.—Contains pepsin combined with ammonio-citrate of bismuth, pyrophosphate of iron, and quinine sulphate.

Elixir Pepsin, Bismuth and Nux Vomica.—Contains pepsin combined with ammonio-citrate of bismuth and nux vomica.

Elixir Pepsin, Bismuth with Quinine.—Contains pepsin combined with ammonio-citrate of bismuth and quinine sulphate.

Elixir Pepsin, Bismuth and Strychnine.—Contains pepsin combined with ammonio-citrate of bismuth and strychnine.

Elixir Pepsin, Bismuth and Strychnine with Iron.—Contains pepsin combined with ammonio-citrate of bismuth, strychnine and pyrophosphate of iron.

Elixir Pepsin, Bismuth, Strychnine and Pancreatin.—Contains pepsin combined with ammonio-citrate of bismuth, strychnine and pancreatin.

Elixir Pepsin, Bismuth and Wafer Ash.—Contains pepsin combined with ammonio-citrate of bismuth and wafer ash.

Elixir Pepsin, Damiana, Phosphorus and Nux Vomica.—Contains pepsin combined with fluid extract damiana, phosphorus and fluid extract nux vomica.

Elixir Pepsin and Pancreatin.—Each fluidounce contains 10 grains saccharated pepsin, U. S. P., combined with 4 grains saccharated pancreatin.

Elixir Pepsin with Quinine.—Contains pepsin combined with quinine sulphate.

Elixir Pepsin with Strychnine.—Contains pepsin combined with strychnine.

Elixir Pepsin, Strychnine and Iron.—Contains pepsin combined with strychnine and pyrophosphate of iron.

Elixir of Pepsin with Wafer Ash.—Contains pepsin combined with fluid extract wafer ash.

Syrup of Lacto-phosphate of Lime with Pepsin.—Contains pepsin combined with calcium lacto-phosphate.

Wine of Pepsin.—Each fluidounce contains 10 grains saccharated pepsin, U. S. P., equal to about 40 grains of commercial saccharated pepsin.

Wine of Pepsin and Bismuth.—Contains pepsin combined with ammonio-citrate of bismuth.

Extract of Malt with Pepsin.—Each fluid ounce contains 4 grains saccharated pepsin, U. S. P.

Extract of Malt with Lacto-phosphates and Pepsin.—Contains pepsin combined with the lacto-phosphates of lime, soda, potassa, iron and manganese.

Extract of Malt with Pepsin and Bismuth.—Contains pepsin combined with ammonio-citrate of bismuth.

Extract of Malt with Pepsin and Pancreatin.—Contains pepsin combined with pancreatin.

Extract of Malt with Pepsin and Strychnine.—Contains pepsin combined with strychnine.

Elixir Lactated Pepsin.—Each fluidounce contains 40 grains lactated pepsin.

Elixir Lactated Pepsin and Bismuth.—Contains lactated pepsin combined with ammonio-citrate of bismuth.

Elixir Lactated Pepsin, Bismuth and Strychnine.—Same as the last with addition of strychnine.

Elixir Lactated Pepsin, Bismuth, Strychnine and Iron.—Same as last with addition of pyrophosphate of iron.

Elixir Gentian, Iron Chloride and Lactated Pepsin.—Contains lactated pepsin combined with gentian and tinct. chloride of iron.

Elixir Iron, Quinine and Strychnine Phosphates with Lactated Pepsin.—Combines lactated pepsin with the phosphate of iron, quinine and strychnine.

Syrup Lactated Pepsin.—Each fluidounce contains 40 grains of lactated pepsin.

Syrup Lactated Pepsin Compound.—Contains lactated pepsin combined with phosphate of potassa, soda, lime and iron.

PARKE, DAVIS & CO., Manufacturing Chemists,

Detroit, Michigan, - - U. S. A.

NEW YORK, 60 MAIDEN LANE AND 21 LIBERTY ST.

ELIXIRS,

Their Nature and Object, and the Liability to their Abuse.

Elixirs, properly speaking, are medicinal preparations in which the objectionable taste of the active ingredient or ingredients is masked by substances which are in themselves destitute of medicinal virtue. The demand for such preparations has its origin in the increasing fastidiousness of refined society, and the enterprise and skill of manufacturing pharmacists have been enlisted in meeting this demand. It is a fact not to be disputed that medicines as dispensed in the last generation were, in many instances, unnecessarily nauseous, and the profession of scientific medicine was consequently brought into much disfavor, a result being the unmerited popularity of a class of practitioners whose efforts were directed towards palatability in the medicines which they prescribed. As an outcome of an awakening of physicians to the weak point in their practice here indicated, elixirs and kindred preparations have secured a firm hold in medicine, and one of the opprobria of scientific medicine has through them been very largely removed.

Elixirs, however, while when properly prepared and restricted to their legitimate field are preparations to be commended, have, like most other good things, been much abused. These abuses consist principally in the introduction, as excipients, of agents which modify the action of the medicines proper, and in depriving the preparations of extremely nauseous drugs of their medicinal worth,—sacrificing actual value to elegance, both of taste and appearance. The selection of the flavor, which shall most effectually accomplish the legitimate object in view without interfering with medicinal action, is a something which requires much skill, knowledge and experience. There is no science to regulate this matter, and the most successful result can only be achieved through experimentation. Few physicians have the time or opportunity, even if they had the inclination and ability, to devote themselves to this line of work, neither can any one, without having previously attended to its details, give the dispenser the necessary instructions for the preparation of the most eligible mixture, while to leave the matter entirely in the hands of the druggist would be to run the risk of additions which, though successful in disguising the taste of the drug, would modify its medicinal action. Moreover, the preparation of an eligible elixir frequently involves complicated manipulations which cannot be completed in less than several days, and then extemporaneous compounding is out of the question. The medicinal elixirs, that is those which are scientifically prepared, both from a medical and pharmaceutical point of view, resolve all these difficulties, and as thus prepared this class of ready-made compounds supply a desideratum which, until their introduction, was keenly felt by all who recognized the importance of combining palatabillty with medicinal activity.

Elixirs have been brought into disrepute through the unscientific character of many of the formulæ according to which many which have long been in the market are prepared. There are certain drugs whose taste it is impossible to disguise, when they are given in the dose specified on the label of certain of the preparatlons of them in the market. In such cases the label does not correctly represent the medicinal ingredients of the elixir. As an illustration of this statement we have an analysis of an Elixir of Gentian and Iron Chloride, the label on which claims it to contain 8 grains of gentian to each fluidounce, notwithstanding which claim it reveals not the slightest trace of gentian to its taste. The analysis explains the palatabiiity, and reveals the falsity of the claim in the label, the fact being that the elixir contains but 3-10 of a grain of gentian to the fluid ounce. The palatability of not a few of the elixirs of wahoo, strychnia and quinia in the market is accounted for in a similar manner.

The question of the officinal recognition of Elixirs is now under advisement by the committee on the decennial revision of the U. S. P., and the indications are that formulæ for this class of preparations will be introduced into the next codex. The desirability, if not the actual necessity of such formulæ is very generally recognized by the medical profession. Pending such recognition in the U. S. P. we shall present our elixirs made after our own formulæ, guaranteeing, as we have heretofore, the absolute honesty of the claims made on the label. Our formulæ for masking the taste of the active principles in each preparation are the result of careful study and patient experiment, and so confident are we that they are unsurpassed for the object contemplated, that when a preparation, claiming to contain an equal percentage of active medicinal principles, is more palatable, we at once suspect a discrepancy between the claims on the label and the actual contents of the bottle, and invite a comparative analysis. While we regard palatibility as important, we hold medicinal virtue to be paramount, and deprecate the dishonesty which sacrifices the latter to the former.

PARKE, DAVIS & CO., Manufacturing Chemists,
Detroit, Michigan.

FEBRUARY 1st, 1882.

PARKE, DAVIS & CO.,

Manufacturing Chemists,

Manufacture a full line of standard pharmaceutical preparations, including those that are officinal in the United States and foreign pharmacopœias, and such as are not thus recognized but whose value is attested by the experience of the medical profession. These preparations comprise:

FLUID EXTRACTS,
SUGAR-COATED PILLS,
GELATIN-COATED PILLS,
SOLID EXTRACTS, ABSTRACTS (Powdered Extracts,)

PINK GRANULES,
CONCENTRATIONS,
EFFERVESCING SALTS,
MEDICATED LOZENGES.
ROLL PLASTERS,
SPREAD PLASTERS,
GLYCEROLES.

These preparations are made after the latest and most approved methods and are in every respect up to the recognized standards of pharmaceutical excellence and medicinal strength.

GERMAN TINCTURES,
ELIXIRS,
WINES,
SYRUPS,
COLLODIONS,
OINTMENTS,
CERATES.

SPECIALTIES.

NORMAL LIQUIDS. By this name are known assayed fluid extracts. They comprise such drugs as have a distinct active principle in the form of an alkaloid or resinoid, and are guaranteed to be of uniform strength and not subject to variations in the strength of the crude drug. They are as definite and constant in their strength as morphine, quinine or other alkaloids, and are a desideratum in medicine.

EMPTY CAPSULES. These capsules are made of the finest French gelatin, and challenge comparison in all those particulars which commend this unequaled device for the exhibition of bitter and nauseous drugs.

SOLUBLE ELASTIC AND HARD FILLED CAPSULES. The former of these are so soft and elastic that their walls may be approximated without rupture and yet regain their original shape when the pressure is removed. As a means of administering nauseous oils, balsams, etc., these capsules are unequaled. The list comprises the majority of such balsams and oils in use, and range in size from 10 minims to a half ounce.

NEW REMEDIES. The enterprize of introducing to the profession drugs, particularly from the vegetable kingdom, which had escaped attention, may be said to have been inaugurated by Parke, Davis & Co. They were the first to conduct such introduction after a system, and are, indeed, still the only house thus intelligently and systematically engaged. They are, by common consent, the headquarters for all matters pertaining to the newer materia medica. For full information on this subject send to them for literature.

Parke, Davis & Co.'s list of specialties comprises, in addition to the above, the following:

PEPSIN, PANCREATIN,
CASCARA CORDIAL,
CHLOR-ANODYNE,
NITRITE OF AMYL
PEARLS.

Especial attention given to private formulæ for pills ordered in lots of 3000 or upwards.

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SOLUTION CHLORIDE OF BROMINE
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and 21 Liberty St., NEW YORK, N. Y.

OLEATES.

Their Origin, Nature and Medicinal Uses.

The use of an oleate of mercury in place of the time honored mercurial ointment was suggested more than ten years ago by Prof. John Marshall, and the advantages of the preparation were so manifest that it came immediately into general use. The oleate was prepared in a very crude manner, by merely dissolving mercuric oxide in a large excess of oleic acid, and although the product left much to be desired from the pharmacist's standpoint, it so far met the expectations of the profession, that a general interest in the compounds of oleic acid was aroused, and experiments were made with oleates of certain alkaloids, as well as of several of the metals which promised to be of great therapeutic usefulness. These compounds were, however, generally made by the same crude and unscientific method which had already been employed in the case of the mercuric oleate. Recently attention has been turned to the pure oleates, particularly of some of the metals, as possessing properties which should entitle them to a place in the materia medica. It had been assumed that for dermic medication the oleates possessed advantages over all other known compounds, both from the facility with which they might be blended with fats in ointments, and the readiness with which, when so blended, they might be absorbed. Clinical experience has confirmed these hypothetical assumptions, and the oleates of zinc, lead, mercury, bismuth, copper and aluminium have already found important applications in therapeutics, and those of iron, silver and arsenic promise to be scarcely less useful.

Dr. John V. Shoemaker, of Philadelphia, has recently drawn the attention of the profession to the therapeutical applications of some of the metallic oleates, particularly in the treatment of diseases of the skin. An extended clinical experience in their use has convinced him that their merits entitle them to a permanent place in the materia medica. He has embodied some of the results of his careful study of the subject in a paper read before the Pennsylvania State Medical Society, and published in their Transactions for the year 1882. To this paper we desire to refer as authority for the following statements: 1. The compounds of oleic acid are remarkable for their ability to penetrate rapidly into animal textures. 2. Ointments prepared from the pure oleates are wholly free from rancidity. 3. The ready absorption of the oleates renders the ointments prepared from them more cleanly than any others. 4. These preparations may be applied to the skin without the tedious friction requisite to promote absorption in other cases. They are likewise much more economical in the amount of material required to produce a specific effect. 5. The metallic oleates seem to exert an antiseptic action, not only on the fats with which they may be combined in an ointment, but also on the discharges from wounds and suppurating surfaces.

Therapeutic Properties of the Metallic Oleates.

The recommendations which follow in regard to the therapeutic uses of the metallic oleates are taken from Dr. Shoemaker's essay above referred to, and are based upon the writer's extended clinical experience in their use.

Oleate of Mercury.—The impure solution of mercuric oleate is well known, and all who have had occasion to dispense it know how unstable is the compound in presence of excess of oleic acid. The pure precipitated oleate of mercury is not liable to this objection, and from this an ointment of any desired strength may be readily prepared with lard or lard oil. Its uses are already somewhat familiar, being the same as those of the old fashioned mercurial ointment. It destroys all parasites, animal or vegetable, and produces all the therapeutic effects, local or constitutional, which have so long rendered mercury an indispensable article of the materia medica.

Oleate of Arsenic.—This is employed in the form of an ointment, containing 20 grains to the ounce, chiefly for its caustic action in the treatment of lupus, of the ulcerating variety of epithelioma, and for destroying warts, condylomata, nævi, corns and old granulations. Its action is mild and comparatively painless and it may be combined with anodynes, such as the oleates of morphia, atropia, etc. When used for warts, corns, etc., the surface must first be punctured or scraped to afford it opportunity to act.

Oleate of Lead.—This compound is used in the form of an ointment (60 per cent.), which is substantially Hebra's unguentum diachyli, but has the advantage of greater definiteness in composition, and is besides more readily prepared. It is used to allay the inflammation and check the discharge in the pustular eczema of infants; it relieves the intense irritation of papular eczema, and especially that form which occurs in the flexures of joints, around the axilla, etc. It is also useful in simple lichen, in acne about the face and back, and, in combination with milk of sulphur, in ordinary scabies.

Oleate of Zinc.—An impalpable powder of a light pearl color and an unctious feel like that of powdered French chalk. It is applied by dusting it over the surface, and its uses in this form are numerous. It is said to be par excellence the remedy for excessive sweating (hyperidrosis) and osmidrosis. It is the most reliable remedy for eczema, and it may be employed in all cases where the oxide of zinc ointment has heretofore been esteemed. It may be employed also in the form of an ointment, containing 25 per cent. of the oleate.

Oleate of Silver.—This, like the oleate of zinc, is offered in the form of a fine powder. When mixed with lard in the proportion of from 10 to 60 grains to the ounce, it forms a dark brown, soft and pliable ointment. It is useful in relieving itching about the meatus auditorius, the anus and the genitals; it is recommended as an application to prevent the spread of erysipelas, or, sufficiently diluted, to be applied to the inflamed surface. The pure oleate may be employed in the treatment of chronic ulcers, bed sores, etc., to bring about a more healthy condition of the parts.

The following formulæ, in use in the American Hospital for Skin Diseases in Philadelphia, will illustrate further the use of these preparations:

In fissured eczema of the plantar and palmar surfaces:

℞ Hydrargyri oleatis, ʒ ss.
Olei cadini, ʒ ss.
Cerati simplicis, ʒ ss.

M. Sig. Rub well into the part, after macerating in hot water, night and morning.

In infantile eczema:

℞ Unguenti plumbi oleatis, ʒ ss.
Pulveris marantæ, ʒ i.
Cerati simplicis, ʒ ss.
Olei olivæ, q. s., ad ft. ung. moll.

M. Sig. Apply lightly over the surface, and in case of much pustulation of the surface or a swelling of the glands, the addition of one-half to one-quarter of a drachm of the oleate of mercury to the above will be very advantageous.

In rosacea, etc., the active inflammation of the blood vessels and tissues of the face may be checked by

℞ Unguenti plumbi oleatis,
Bismuthi oleatis, āā ʒ i.

M. Sig. Apply a very small piece night and morning.

In eczema of the anus with external piles great relief is afforded by

℞ Bismuthi oleatis, ʒ ij.
Extracti opii, gr. x.
Extracti belladonnæ, gr. x.
Cerati simplicis, ʒ ss.

M. Sig. Apply frequently.

Oleate of Bismuth.—The oleate of bismuth is of an ointment like consistency; it is emollient and slightly astringent, and is a most valuable remedy in soothing and relieving cutaneous irritation. In pustular eruptions, particularly in sycosis, this oleate, pencilled over the surface with a camel's hair brush, will greatly relieve the engorgement of the parts; it will often abort the pustules, and relieve the pricking and itching which are so intolerable to the patient. It is also useful in superficial erysipelas, in sun burn, as an application to cracked and sore nipples, and in the treatment (applied by a bougie) of subacute gonorrhœa and gleet.

Oleate of Iron.—This forms a reddish-brown paste of a feebly styptic taste, readily soluble in fats. It exerts locally an astringent effect, but may also be employed with a view to its constitutional tonic action, since it is readily absorbed.

Oleate of Copper.—An ointment containing ten or twenty per cent. of the oleate may be used. It is very efficacious in the treatment of ringworm. It is useful also as an application to hard and horny warts, corns and bunions.

Oleate of Aluminium.—The ointment prepared from this oleate has a powerful astringent action. Its chief use, therefore, is in checking profuse secretion, as in some forms of eczema. It may be employed as a dressing for foul ulcers, abscesses, sinuses, burns and scalds, etc.

Oleates of Alkaloids.—We prepare also solutions of the oleates of the more important alkaloids. Where the local effects of these agents are desired, or where they cannot be administered in the usual manner, these solutions of the oleates may be advantageously employed. These powerful agents exert their peculiar influence more energetically in this form of combination than in any other, since they are easily absorbed.

PRICE LIST.

OLEATES OF ALKALOIDS IN SOLUTION.	PER OZ.
Aconitine, containing 2% of the alkaloid, in ¼ oz. vials	$ 4 00
Atropine, containing 2% of the alkaloid	60
Morphine, containing 10% of the pure alkaloid	75
Morphine and Mercury, containing 5% of the pure alkaloid, and 20% Mercuric Oxide	65
Quinine, containing 25% of the pure alkaloid	1 25
Strychnine, containing 2% of the alkaloid	35
Veratrine, containing 10% of the alkaloid	1 00

METALLIC OLEATES.	PER OZ.
Oleate of Aluminium	$ 30
Oleate of Arsenic	30
Oleate of Bismuth	30
Oleate of Copper	30
Oleate of Iron	30
Oleate of Lead	30
Oleate of Mercury	35
Oleate of Silver	in ½ oz. vials. 2 50
Oleate of Zinc	30

OINTMENTS OF METALLIC OLEATES.	PER LB.
Aluminium oleate, 50%	$2 00
Arsenic oleate, 5%	2 00
Copper oleate, 20%	2 00
Iron (ferric) oleate, 25%	2 00
Lead oleate, 50%	2 00
Mercuric oleate, 10%	2 00
Silver oleate, 5%	2 00
Zinc oleate, 25%	2 00

PARKE, DAVIS & CO., Manufacturing Chemists,
NEW YORK. 60 Maiden Lane and 21 Liberty Street. DETROIT, MICHIGAN.

CASCARA CORDIAL.

PUT UP IN CASES CONTAINING ONE DOZEN FLASKS EACH

Cascara Cordial is an elixir of the bark of the Rhamnus Purshiana (Cascara Sagrada), a tree indigenous to Northern California and Oregon. Cascara Sagrada had long been known to the Indians and Spanish residents of the Pacific coast, prior to its introduction to the medical profession, and was popularly held as a remedy of high repute in the treatment of habitual constipation and stomachic debility. Although the tree is found in other sections careful examinations and trials of samples selected from different latitudes show a variability in active properties in the different specimens. Rhamnus Purshiana is, however, not peculiar in this regard. The same fact (variability of active principles with variability of climate and soil) has familiar illustrations in the case of opium, hemp, stramonium, digitalis and other drugs. Although attaining equal size and luxuriance of foliage in some sections, they may yet be almost or entirely destitute of their characteristic properties. Native opium or hemp, for instance, are comparatively inert, notwithstanding the fact that the plant may vie with that of Asia in size and vigor of growth.

This peculiarity of plant growth has a very particular bearing, and in the case of few other plants is it more important to have a reference thereto than in that of Rhamnus Purshiana. The neglect thereof has given rise to much discrepency in the testimony regarding the medicinal virtues of the tree. Varieties gathered in some sections, although presenting the physical appearances of the active bark, are practically inert, and through either ignorance or a disregard of this peculiarity, the market has been largely supplied with the latter variety. Northern California and Oregon as far as ascertained are the only sections, of this country at least, which furnish the conditions necessary to the development of the medicinal properties of Rhamnus Purshiana.

Another circumstance affecting the quality of the bark is the season at which it is gathered. Experience has shown this to be a very important fact to be borne in mind.

It is scarcely necessary for us to recount the history of the introduction of Rhamnus Purshiana to the medical profession. It will be remembered that our house was the first to give it this introduction, and that rival manufacturers, ignorant of the peculiarities of the tree above enumerated, gathered the bark irrespective of the section of its growth. The consequent failure to secure such results from their preparations as marked ours, instigated the charge that our preparation was a compound to which we had arbitrarily given the name "Cascara Sagrada." The charge, however, although it temporarily served its purpose, viz., the casting of a suspicion on the integrity of our house, was soon shown to be both baseless and malicious, and the Rhamnus Purshiana of our preparation became established as an agent possessed of properties hitherto unequaled in any other drug.

The intimacy of our identification with Rhamnus Purshiana has made it actually necessary that our preparation of it should absolutely conform to the recognized tests. The properties of the drug as we have advertised them to the profession are predicated on the employment of the true variety. In order to secure this variety from which the preparations to which we attach our name are made, it is necessary to make the drug (having the peculiarities we have indicated) a special object of study. This we have done, and the bark is gathered under our special supervision, and each year's crop submitted to a careful chemical analysis to determine its percentage of active principles.

Disappointments in the results of the administration of Cascara Sagrada is due either to the employment of inferior or spurious varieties, or to the improper use of the true drug and the non-observance of proper dietetic and hygienic rules. Constipation is essentially a symptom of a functional disease of the intestines, this disease consisting usually of a diminished tonicity of the muscular coats, resulting directly in the impairment of the normal vermicular contraction. As is the case with other diseases it is the result of a cause, and in its treatment, as in the treatment of other diseases, that cause must first be removed. This cause is very generally due to indiscretion in diet, undue quantity andi mproper quality of food, irregularity in the habit of evacuation, and deficiency of systematic exercise. To secure the benefits of cascara these must be corrected.

Cascara acts curatively in constipation by imparting tone to the muscular coats of the intestine, and is most effective to that end when administered in small doses. In large doses it acts as a cathartic, and thus like all other cathartics given in constipation, it defeats the very end for which it is given, by weakening the bowels by its violent action. By insisting on a faithful adherence to the rules prescribed on each bottle of our preparations of this remedy, in connection with proper diet, of fruit and vegetables, abstinence from alcoholic liquors, which unfavorably influence the liver, regular habits of exercise and the observance of regularity in the time of seeking an evacuation, the physician will find this remedy entirely satisfactory.

Our object in the preparation of the Cascara Cordial is to relieve the prescriber of the difficulty of ordering such a combination with the drug as will relieve it of its objectionable taste. This preparation is essentially an elixir, but it will be found to be so pleasantly combined that with solvents, aromatics and carminatives as to entitle it to be styled a cordial. The presence of berberis aquifolium in the mixture imparts to it decided alterative properties, thus making it a scientific substitute for the patented sarsaparilla compounds and other nostrum "blood purifiers" in the market. In chronic non-inflammatory skin affections, which are usually associated with defective hepatic and intestinal secretion, its success has been very pronounced, and in other dyscrasiæ it will seldom be found necessary to add the iodides.

The results of very extended trial given this preparation by the profession since our introduction of it, warrant us in strongly recommending it to those physicians who are as yet unfamiliar with its properties. To any who may desire the recorded experience of the medical gentlemen who have employed it, we will be pleased to furnish on application, a pamphlet compiled from such reports as have appeared in the various medical journals.

PARKE, DAVIS & CO., Manufacturing Chemists,

DETROIT, MICHIGAN.

PARKE, DAVIS & CO.,

Manufacturing Chemists, - - DETROIT, MICHIGAN.

SPECIAL FORMULAS.

The rapid extension of this branch of our business, and the consequent augment of inquiries, have prompted us to issue this circular for the convenience of those interested.

The privacy of these transactions is strictly maintained, and the formulas regarded as being simply held in trust.

Articles of this class are not quoted subject to discount, being sold free on board at Detroit or New York, net cash, 30 days.

Parties with whom we have no account are requested to send remittance with order. We cannot, under other circumstances, be expected to undertake the execution of orders involving the mixture of drugs which are thereafter of value to the purchaser alone.

It will be understood that prices are invariably calculated upon the use of the best quality of ingredients only, and they will be found as low as is consistent with the cost of such material. We wish to observe that we have no intention of competing with quotations, where a difference in price is to be ascribed to an unjustifiable saving in labor or material. As our facilities are unsurpassed for the most advantageous production of pharmaceutical preparations in every variety, we venture to solicit the preference of our customers' patronage as being identified with their own interests.

PILLS.

We offer these articles in seven varieties:

UNCOATED, Round or Oviform.
SUGAR COATED, Round or Oviform.
GELATIN COATED, Round or Oviform.
COMPRESSED, Double Convex Disks.

From the fact that our apparatus are established and adapted to manufactures of magnitude only, we are compelled to decline orders for any smaller quantity than 3 000. A lesser number involves the same expense, and, consequently, enhances the cost approximately to that of 3,000. Inquiries and orders should specify the precise *formula, shape, size,* coating, quantity, style of package* and *mode of shipment.* It is essential that this caution be strictly followed, to avoid the loss of time otherwise involved by the transmittal of our inquiry for information, and the acknowledgment thereto, as we are unable to judge these points, owing to the multitudinous objects for which this class of manufactures is designed.

Sugar coated pills will be finished of any desired color. Where they are required to match previous supplies, specimens should accompany order. Gelatin coated pills cannot be treated in this manner, as the coating does not afford enough substance to hold coloring matter sufficient to predominate over the color of the mass.

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* When a specified quantity of material is prescribed to be made into pills of a stated size, without naming the total number so produced, it should be mentioned whether the stated size is to include the necessary proportion of excipient, or whether the amount of active material only is referred to, to which the excipient is to be added. For instance, where a medicine requiring, say, 50% excipient is prescribed to be made into pills of, say, 3 grains, it is necessary to specify whether the pills are desired containing 3 grains active material with the addition of 1½ grains excipient, or whether 3 grains is to comprise the proportion of excipient.

Our attention is frequently called to an apparent disproportion between the prices of a special formula and that of a similar formula in our list. In explanation will state that the formulas in our list, being constantly kept in stock are produced in very large quantities and consequently at a minimum expense, while the manufacture of a special formula is necessarily limited to the extent of the order. Therefore, when the quantity is but moderate, the cost of manipulation is much greater than that of an equal number of stock pills.

Orders usually require two weeks for execution, but this limit is often anticipated, and sometimes extended, as the requirements of the case necessitate.

GLASS. WOOD.

STYLE OF PILL PACKAGES FOR 25 PILLS.

Pills will be furnished in bottles, or in wooden or paper boxes, labeled and finished ready for immediate sale. Queries should explicitly cover full particulars as to the number of pills each bottle or box is to contain, and the quantity of printed matter required. We do not calculate upon engraving, or plates of any kind, unless these are specified; our estimates covering the allowance for ordinary printing only. As we conduct a printing office of our own, we are enabled to offer specially favorable rates upon orders of this kind. It is eminently desirable that we be supplied with specimens of the goods wanted, wherever this is possible.

When left to our discretion, we supply sugar coated pills, oviform; uncoated and gelatin coated pills, round.

Where no specific directions are provided, the pills will be made as small as the addition of a minimum quantity of excipient will allow, and the coating as thin as is possible without endangering the permanency of the pill.

We are frequently solicited to manufacture pills from material furnished, instead of employing our own. While we do not object to execute orders of this nature, the disadvantages of this method are so manifest that we are disinclined to accept such commissions except under protest. Being manufacturers, or extensive consumers, of all the remedies employed in pill form, we are enabled to offer better inducements on the material than can possibly be obtained by the purchaser of limited quantities, which are further enhanced in cost by the expense of the packages, and the transportation to Detroit. As we employ but one standard grade of material, and have become familiar with the characteristics of our own goods, we can naturally rely upon producing a better finished article, under these circumstances, than when handling material possessing obstructive features, the extent of which we are ignorant, and against which we can make no provision. In these cases, the purchaser also receives a percentage of defective pills, while with our own manufactures, all blemished pills are carefully removed, a small surplus being always provided to offset this proportion. Presuming the item of secrecy to be the chief factor in creating a preference for supplying the material, we will reiterate that all correspondence from this department is treated in strict confidence. So far as the quality of the drugs is concerned, we can assure those interested that the goods are such as are used in our own products, and are unqualifiedly the best. In point of fact, the large extent and direct source of our purchases, enable us to secure articles of a quality superior to the best usually found in the market.

LOZENGES.

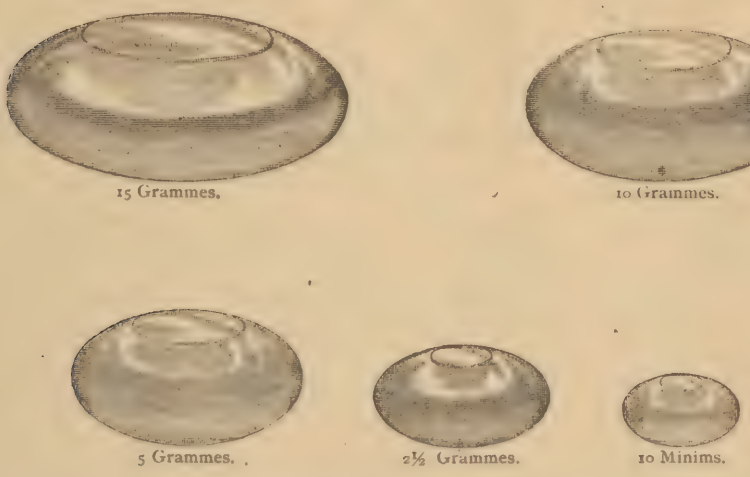
We furnish lozenges in lots of 3 lbs. or over, of any combination, shape, or color. In selecting a shape, a lozenge amply large must be chosen, to permit the addition of sufficient excipient to modify the taste of the unpleasant ingredients. Care must be taken not to select a color incompatible with the nature of the medicinal agents, which often preclude the use of any coloring matter whatever. From one week to ten days is usually required for the execution of orders.

We are prepared to furnish lozenges in paper boxes, or in any other style of package, labeled and finished ready for sale. Inquiries should be explicit as to the number desired in each box.

On the last page of our circular will be found diagrams of shape and specification of color.

FILLED CAPSULES.

In quantities of one gross and upwards, we will furnish hard or elastic capsules filled with any desired medicine. It will be remembered that agents which will dissolve or affect gelatin cannot be employed in this form. Our variety of filled capsules comprises: *hard*, of 10 minims capacity, and *elastic*, of 10 minims, 2½, 5, 10 and 15 grammes capacity. We provide also medicines for rectal, vaginal, or veterinary administration in our hard capsules.



STYLE OF FILLED ELASTIC CAPSULES.

Where a smaller dose than 10 minims is prescribed, we use our 10 minim capsules, this being the smallest shell we manufacture, and either add a sufficient quantity of some inactive vehicle to occupy the capacity of the capsule, or we omit the vehicle, enclosing only the prescribed quantity. The former mode is preferable, on account of appearance, and is always adopted in absence of contrary instructions.

About one week is required for the delivery of orders.

EXTRACTS.

Fluid or solid extracts from special material, or of particular strength, will be furnished in any reasonable quantity. We will make arrangements with extensive consumers for the periodical delivery of these preparations in bulk.

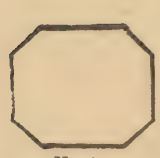
COMPOUNDS.

While we have never sought to extend this branch of our business beyond the variety comprised by our list preparations, and a number of officinal and otherwise standard compounds, we are the recipients of numerous inquiries, actuated by the fact of our having complete apparatus and facilities available. We will say, in general, that when required in sufficient quantity, we will supply any mixture or compound: we cannot, however, be expected to provide these preparations in limited quantities, involving the employment of our apparatus and time, to the exclusion of more important matters. We have learnt by experience, that the furnishing of small quantities is seldom satisfactory, for while affording us neither profit nor appreciation, the comparatively high cost involved by the bestowal of that degree of labor and attention which the routine of our business prescribes for each individual item, irrespective of quantity, so enhances our own cost, that even when charging this figure without advance the suspicion of an excessive price is often conveyed, when the facts of the case have not been considered. For this reason, principally, we are disinclined to accept commissions of this character.

PARKE, DAVIS & CO.'S
MEDICATED AND FLAVORED LOZENGES

STYLES OF SHAPE AND COLOR.

SHAPES.


No. 1.
400 to pound.


No. 2.
360 to pound.

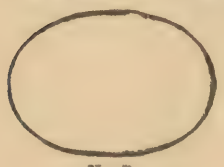

No. 3.
500 to pound.


No. 4.
700 to pound.


No. 5.
530 to pound.

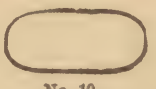

No. 6.
500 to pound.


No. 12.
1050 to pound.


No. 7.
250 to pound.


No. 8.
400 to pound.


No. 9.
800 to pound.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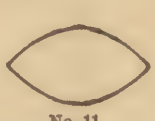
800 to pound.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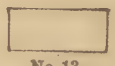
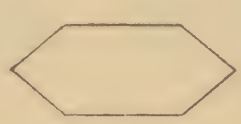

No. 13.
1500 to pound.


No. 14.
700 to pound.


No. 15.
350 to pound.


No. 16.
400 to pound.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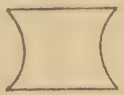
350 to pound.


No. 18.
700 to pound.


No. 19.
750 to pound.


No. 20.
700 to pound.


No. 21.
500 to pound.


No. 22.
350 to pound.


No. 23.
700 to pound.


No. 24.
500 to pound.

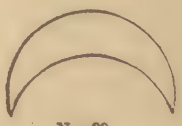

No. 25
400 to pound.


No. 26.
350 to pound.


No. 27.
350 to pound.


No. 28.
320 to pound.


No. 29.
350 to pound.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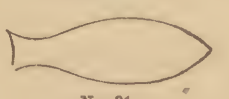
530 to pound.


No. 32.


No. 31.
700 to pound.


No. 33.

COLORS.

White.	Dark Yellow.	Pink.	Crimson.	Violet.	Dark Blue.	Slate.	Brown.	Bright Green.
Cream.	Salmon.	Rose.	Dark Crimson.	Purple.	Black.	Light Drab.	Pale Green.	Dark Green.
Light Yellow.	Orange.	Scarlet.	Lavender.	Light Blue.	Stone.	Chocolate.		

Coloring wholly Vegetable and Perfectly Harmless.

WORKING BULLETIN

FOR THE SCIENTIFIC INVESTIGATION OF

CASCARA SAGRADA,

(RHAMNUS PURSHIANA.)

A Plan to promote Progress in the Science of Pharmacology.

This working bulletin, accompanied by the drug to be investigated, or a preparation of the same, both, as the circumstances require, is distributed gratuitously to the Colleges, Universities and other institutions engaged in scientific work, and to the government hospitals, and public hospitals and dispensaries, and to the medical profession at large, to obtain the results of the drug in treating the sick.

The object is to promote original investigation in the science of drugs. This we propose to do by furnishing gratuitously to those engaged in original research, material for investigation, and by publishing the results of the same as a donation to scientific literature. It is apparent that the only return which we can receive for this work is the increased demand for the valuable drugs which we are introducing to science, for we guarantee to publish full reports, favorable or otherwise.

Articles in relation to the drug, under the following heads embraced by the pharmacology, are requested for the THERAPEUTIC GAZETTE, the organ which represents this new system of work. These heads form the classification of this bulletin. In regard to each drug investigated we solicit reports for publication upon the subjects of scientific name; synonyms; definition; natural order; botanical origin; history; commerce; production: cultivation; description; microscopical structure; chemical composition; uses (in medicine); adulterations and substitutions; pharmaceutical preparations and dose; antagonists and incompatibles; synergists physiological action; therapeutic properties; toxicology and antidotes.

At the end of the year the reports published in the GAZETTE will be collected, classified, and published in the form of an ANNUAL REPORT, which will be donated to the libraries of the Smithsonian Institute, a goverment institute at Washington for the free diffusion of knowledge; and a sample of the drug, and our preparation of it, will be deposited in the National Museum, in the department delegated to pharmacology.

SENT OUT BY

THE SCIENTIFIC DEPARTMENT OF

PARKE, DAVIS & CO.,

Manufacturing Chemists, Detroit, Mich., U. S. A.

CASCARA SAGRADA.

(Rhamnus Purshiana.)

Definition—The bark of rhamnus purshiana.

Synonyms—Cascara sagrado; cascara sagrada; sacred bark; sacred tree bark.

Natural Order—Rhamnaceæ.

Botanical Origin.—Natural Order—Rhamnaceæ. Tribe—Rhamneæ. Rhamnus purshiana (cascara sagrada) is a small tree indigenous to the Pacific coast of North America. Its name was given in honor of the renowned Prussian botanist, Frederick Pursh, who, in 1814, first gave it such a description as fixed its place in botany, his investigations being made on specimens received by him directly from the habitat.

The plants of this species of the rhamnus attain dimensions of from ten to twenty feet in height, measuring through their trunk from six to nine inches. The leaves are ovoid in shape, from three to five inches in length, by about half an inch in their greatest width. They are borne on leaf-stalks about an inch in length, The margin of the leaf is regularly dentate with numerous small, serrate teeth, except at the base. When young, the leaves are covered with a dense pubescence on the under surface, but when old they become glabrous and bright green. The flowers are small and white, and appear after the leaves have matured, being disposed in close, umbellar clusters, on pubescent peduncles, slightly longer than the leaf stalks. The fruit is a plain, round, black berry, about a quarter of an inch in diameter, and contains three seeds.

Rhamnus purshiana differs from other species of the rhamnus family in that it is a larger tree and bears a larger fruit. The difference is peculiarly marked as between it and the rhamnus catharticus, with which species it has been often confounded.

The following statement, compiled from a report of Messrs. Parke, Davis & Co., of Detroit, who were prominent as the introducers of the drug to the notice of the medical profession, contains besides an account of a controversy which excited considerable professional interest, some points touching on a certain obscurity which surrounded the botanical origin of the drug on its first introduction:

Several of these plants attracting the attention of Dr. J. H. Bundy, an eclectic physician residing at Calusa, Cal., were employed by him with much satisfaction in his practice. One of these plants, cascara sagrada, became the subject of much controversy. Dr. Bundy (since deceased) was a man of scholarly attainments, and withal a very successful practitioner, though not belonging to the school designating themselves "regular." As a successful "irregular" physician, Dr. Bundy excited much professional jealousy among the rival schools in the neighborhood of his abode. Another drug was introduced to the notice of the profession at about this time (grindeliæ robusta) by a gentleman, prominent in position as a member of the "regular" school, and living in the adjoining town of Alameda. Every condition essential to a bitter rivalry between these two gentlemen was by these circumstances engendered. Rivals in school, rivals in business, and rivals in the special work of their choice in the introduction of new drugs, there was born an animosity which culminated in an attack on Dr. Bundy, by Dr. Gibbons, and led to a very acrimonious feud. At this time we were attracted also by the reports of the great value of Rhamnus Purshiana, and determined to introduce it more generally to the notice of the medical profession. The first information we received in regard to the drug was from Dr. Bundy, and through his agency we were enabled to obtain a limited supply. Tests in the practice of careful observers in all parts of the country confirmed our belief in the peculiar virtues of the plant, and a large demand, created by our distribution of Dr. Bundy's literature, finally necessitated our sending an expedition to investigate the habitat of this new drug, to obtain, if possible, a sufficient supply to meet our increasing orders. A new factor was thus added, by our association in the matter, viz.: business rivalry, and a dispute arose which extended to the medical press and scientific circles all over the United States. The pivot on which turned all this controversy was a name. Rhamnus Purshiana was introduced by Dr. Bundy under the common Spanish name, cascara sagrado. This not being the botanical name of the plant, and the botanical name not being known to its introducer, it was not published. A nidus was thus formed woven from professional and trade jealousy in which reposed an egg which hatched into vituperative crimination. Dr. W. G. Gibbons, of Alameda, read a paper before the Aalmeda County Medical Society, making a severe attack upon Dr. Bundy, the spirit of which was: First, that Dr. Bundy was an eclectic; second, that any remedies that he had introduced were for this reason un-

worthy the attention of the medical profession; and third, that certain remedies, among which was cascara sagrado, did not exist under any such name on the Pacific coast, and were, for that reason, evidently intended to be used as an imposition upon the medical profession. This paper, afterward published in the October, 1878, number of the Pacific Medical and Surgical Journal, was used by our competitors to carry the impression to the medical profession that we had ourselves been engaged in some dark scheme for taking advantage of our patrons. Attempts were also made to throw the drug itself into desrepute as being of no particular value, and only placed on the market to secure the transient demand created by flashy advertisements. Dr. Bundy stated distinctly in his introductory paper, which appeared in "New Preparations," Jan. 15, 1878: "A description of the cascara I am unable to give at this time, but suffice it to say it is a shrub. In due time its botanical name will be known." And in another communication, "that the shrub is a native of the Pacific coast." Dr. Gibbons, in his paper, said: "There is no such plant known to any botanist on the Pacific coast." The question then was one of veracity between Dr. Bundy and Dr. Gibbons, and not a question in which we were involved at all, except from the fact that we introduced the drug more generally under its Spanish name for want of something better. The point at issue was finally settled, however, by the Pacific Medical and Surgical Journal, which stated editorially, Jan, 1879: "Cascara (bark) sagrada (sacred) is the common Spanish name of rhamnus purshiana, and means simply, sacred bark." And in regard to the virtues of cascara sagrada,—rhamnus purshiana—it is only necessary to refer to the great and lasting demand for this drug from professional sources, and the universal testimony of the medical profession throughout the United States.

Full information in regard to the controversy about the name and botanical origin of rhamnus Purshiana will be found in the library of the Smithsonian Institute at Washington, under the caption of "United States Professional Court, W. P. Gibbons vs. J. H. Bundy."

Report from Dr. J. H. Bundy, Calusa, Cal., (New Preparations, October, 1877, p. 8.) This report is a casual notice of cascara given in connection with berberis aquifolium, in a paper published in New Preparations for October, 1877, as above. It is referred to here because of interest in relation to the scientific history of the drug. For Dr. Bundy's introductory article see Therapeutics in this report.

Report from H. L. Coit, paper read before the Alumni Association of the New York College of Pharmacy, (Therapeutic Gazette, March, 1881, p. 113.) This shrub of California, which has recently been introduced into the unwritten materia medica, and one part of which, no doubt, is destined to become one of the specific remedial agents, seems to be worthy of a few moments' consideration. Cascara sagrada is a nomenclature of local application, being applied, I believe, by the Mexican residents who have long known its medicinal qualities. The partial signification of this name is sacred bark, or sacred tree bark; it is also called shittim wood. I am not sure that this is the same as that celebrated in Holy Writ. The shrub has been classified with the rhamnaceæ, of which family it is undoubtedly a member. Its generic term is therefore rhamnus, and it has been named rhamnus purshiana. Very little is known of its chemical composition, save that the bark (which has recently been introduced as a medicament) has passed under the practiced eye of Prof. Albert B. Prescott, who has found in it several resins, a crystallizable body, tannic, oxalic, and malic acids, a fatty and volatile oil, wax, and starch in abundance. This, however, is a matter of little moment until its physiological and therapeutical value shall have been demonstrated, and it shall become a remedy of unquestionable reputation. Until then its practical utility is of greater import, and therefore a primary consideration.

Microscopical Structure.—Report from Albert B. Prescott, M. D., Professor of Organic and Applied Chemistry and Pharmacy, University of Michigan. (New Preparations, February, 1879, p. 27.) The examination embraced (1) the structure of the bark, and (2) the chemical constituents of the bark.

(I.) The structure of the bark. The corky layer (*a*). This consists of the outer epidermis of dark brown withered cells, then several rows of cells filled with a dark red coloring matter (*e*), and in the more recent bark, a row or two of cells containing chlorophyll. The red color (*e*) is soluble in ether, alcohol, potassium, hydrate solution (with dark brown color), insoluble in acetic acid.

(II.) The middle bark (*b*) is made up of parenchymatous cells, which are filled with small starch grains. There are visible, also, in the transverse section, several groups of cubical crystals (*f*), and, in the longitudinal section, groups of very thick-walled yellow cells (*k*). These cells (*k*) are not noticeably affected by the ordinary regents.

(III.) The inner bark (*c*) consists principally of yellow medullary rays (*d*), separated by bast parenchyma (*g*), through which are scattered numerous yellow bast fibres (*h*). As seen in longitudinal sections, these fibres (*h*) are frequently surrounded by small cubical crystals (*f*), appeared not to be affected by hydrochloric acid.

Almost the entire inner bark (III.), and parts of the middle bark (II.), are turned cherry-red color by contact with potassium hydrate solution.

Chemical Composition.—Report from Prof. Albert B. Prescott, M. D., Professor of Organic and Applied Chemistry and Pharmacy, University of Michigan. (New Preparations,

February, 1879, p. 28.) 1. A brown resin, of strong, bitter taste, colored vivid purple-red by potassium hydrate solution. This resin is contained mostly in the middle and inner layers of the bark. It is sparingly soluble in water, freely soluble in alcohol and dilute alcohol, scarcely soluble at all in absolute ether, soluble in chloroform, soluble in benzole (of coal tar), and in carbon disulphide; soluble in caustic alkali solution, with splendid color above mentioned, and precipitated from this solution by acids. Concentrated sulphuric acid colors it blood-red. It is removed from alcohol solution by animal charcoal.

2. A red resin, nearly tasteless, colored rich brown by potassium hydrate solution. It is insoluble in water, soluble in alcohol and dilute alcohol, not freely soluble in ether, or chloroform, or carbon disulphide; soluble in caustic alkali solution, with the brown color above mentioned, this solution being precipitated by acids. Concentrated sulphuric acid deepens its color, brownish-red. It is not removed from alcohol solution by animal charcoal. In the bark, it resides in the corky layer (*a*).

3. A light yellow resin, or natural body, tasteless, color bright red-brown by sulphuric acid, not colored by potassium hydrate solution. It is insoluble in water, soluble in hot alcohol, sparingly soluble in cold alcohol of 70 per cent., soluble in chloroform, in carbon disulphide, and to some extent in benzole (of coal tar). In the concentration of its solution, it deposits in pale orange yellow granules. Its alcoholic solution gives negative results with the general tests for alkaloids.

4. A crystallizable body, obtained from absolute alcohol solution, in white double pyramids, and some other forms of the dimetric system. The crystals melt and then sublime, at a temperature a little above the water-bath, the sublimate being partly crystalline. This substance is not appreciably soluble in ether, chloroform, or petroleum ether; is slowly soluble in absolute alcohol, slightly soluble in 70 per cent. alcohol, soluble in benzole (of coal tar). It is neutral to test papers, and is not dissolved by potassium hydrate solution, by acetic acid, or dilute sulphuric acid. It is not colored by potassium hydrate solution, concentrated sulphuric acid, nitric acid, Frœhde's reagent, or sulphuric acid, followed by dichromate. The alcohol solution gives negative results with the general test for the alkaloids.*

5. A tannic acid, giving brownish-green color, with ferric salts.

6. Oxalic acid.

7. Malic acid.

8. A fat oil, of yellow color.

9. A volatile oil, not abundant, bearing the characteristic odor of the bark.

10. Wax.

11. Starch, in abundant quantity.

The proportional quantity of the resins, 1, 2 and 3, is indicated pretty nearly by the quantity of resin extract obtained as follows: An acidulated alcohol solution of the bark was neutralized (with ammonia), and evaporated, the residue dissolved in dilute potassium hydrate solution, this solution precipitated by dilute hydrochloric acid, and the precipitate drained and dried at gentle heat. (The filtrate contained some resin, 1, and the precipitate retained, of course, the dissolved substances not washed out). This crude resin etxract (chiefly bodies 1, 2 and 3), was about 10 per cent of the weight of the bark.

The substances numbered 3 and 4 appear particularly to deserve further chemical investigation, which I hope to be able to give them. The chemistry of the rhamnaceæ is of decided interest, especially within a few years past. Rhamnus frangula, the European buckthorn, or black alder, has been reported by Lieberman and Waldstein (1876) to contain emodin, a well-determined constituent of rhubarb, allied to chrysophane, and chemically a derivative of anthracene. Further, the investigators just named find it nearly, or quite certain, than frangulin is capable of ready change to emodin, by glucosic fermentation. This may be associated with the well-known fact that the bark of the rhamnus frangula changes in therapeutic properties by storing. It has both emetic and purgative action in the first year after gathering, but when two years old retains only the purgative power—one much like rhubarb—so that some authorities positively direct that it be not used until two years after gathering. The glucosic fermentation of frangulin into frangulic acid has been known for some time, but the like formation of emodin, a constituent of rhubarb, seems a step nearer some chemical explanation of the change of medicinal power characteristic of the bark. The material worked by Lieberman and Waldstein was a large quantity of residual extract of a large quantity of frangula bark worked by the manufacturer, Merck.

The chemical constituents of rhamnus purshiana, though not determined in this analysis to be, in any compound, identical with constituents of rhamnus frangula, yet show several similar reactions, especially in the case of "brown resin, 1." The rhamnaceæ very probably contain, in different species, allied bodies, some of them related to others as parent and product, but having practically distinct medicinal powers. These powers, of course, are known only by physiological and therapeutic trial.

Adulterations and Substitutions—Report from E. Thompson, M. D., Newton, Upper Falls, Mass. (Therapeutic Gazette, July, 1880, p. 225). I have used cascara sagrada since last

*The crystals of this substance were repeatedly obtained as follows: The alcohol extract of the bark (previously exhausted with ether) was dissolved by water, this solution precipitated by lead acetate, the washed and drained precipitate suspended in absolute alcohol and the lead removed.

March, in nine cases of obstinate constipation, and have no failure to report up to the present time. My first experience with this remedy was a little singular, and I desire to admit it as one of the possible explanations of the non-success of the practice of some physicians. In the summer of 1879 I had two patients who suffered extremely with constipation, and they taxed my ingenuity to keep them in order without resorting to enemas. Having seen favorable notices of the action of cascara, I resolved to test it, and made inquiries for it of several druggists in Boston, but gained no knowledge, as they were not familiar with the remedy. Finally one druggist obtained a six ounce bottle of the fluid extract. I prescribed ten drop doses night and morning in a little sweetened water. It acted like magic. A few weeks later, a patient, having had his prescription refilled, returned, saying the medicine did not have the usual effect. I ordered an increased dose, but the next day he reported that 20 drops had been taken every hour during the day, with no effect on the bowels, and that he was obliged to resort to other means to relieve them. In March, 1880, the mother of the other patient, a little girl of 3 years, said to me, "the bottle of medicine you last gave my little girl does not relieve her as the first sample did." A look at the bottle showed a thick, muddy sediment, and the original package told the same story. So the question about the medicine having lost its property was solved. I gave the little girl a sample procured from a house whose name was a guarantee of the proper quality of the drug, and ordered five drops night and morning. Its action was prompt, and at the end of the third week, the mother discontinued its use, since which time there has been no further necessity for it.

THERAPEUTIC PROPERTIES.

Reports from Private Practice.

1.

Report from Dr. J. H. Bundy, of Calusa, Cal., (New Preparations, January, 1878; p. 1.) A casual notice of cascara was given in connection with berberis aquifolium in my last paper only because I could not well do otherwise, having used it with berberis in the case reported, and used it because I had so thoroughly tested it in that direction, and wanted nothing better. I always intend to say as little as possible, and let that little be to the point.

In presenting this paper on cascara sagrada as almost a specific in that most frequent and subtle malady—constipation, it will be necessary for me to refer to the causes of it, and reason how this agent is curative in that direction. Habitual constipation is the only farm to which I shall direct attention, as that phase which arises as a symptom of other difficulties, such as obstruction, etc., has no bearing on the subject in hand.

The nature of the diet; deficiency or a faulty composition of the intestinal secretions; disordered glands that pour their secretions into intestines; impairment of muscular power, which leads to deficiency in their propelling power, which may result from nervous or mechanical influences; congestion of the portal circulation; normal secretion of intestinal juices interfered with; deficiency in biliary secretions of a healthy character; congestion of mucous membrane of intestines, and last and the most frequent causes—resisting the calls of nature from carelessness, or circumstances that prevent the obedience at the proper time, etc. The constant habit of taking cathartics is a source of much mischief, and were we treated in the manner that the gastro-intestinal tract generally is, we, too, would fail to work, and find ourselves prostrate. I employ a fluid extract of the cascara, using one ounce in a four-ounce mixture, in combination with other remedies, or alone, as the case may require. It acts upon the sympathetic nervous system, ecpecially upon the solar plexus, stimulating the nutritive and assimilative forces, increasing the digestive processes generally. It acts upon the secretory system in a marvelous manner, especially where the secretions are deficient and perverted; and this seems to be one of its special indications. When you have a case in which the constipation depends upon the above condition:

℞ Fl. ext. cascaræ sagradæ,
Syrup simplicis (or ext. malt).
Aquæ, ää ℥j.

M. S. A teaspoonful three or four times daily is all that is wanted to perfectly regulate the want of, and to change the perverted secretions. It acts upon the hepatic secretion and circulation peculiarly, but more positively than anything I ever gave before; peculiarly, because it produces no impression upon the system in the way of nausea (or derangement of any other function), pain or inconvenience whatever, and my patients speak of it in the highest terms, as being as nice to take as it is pleasant in its action. Constipation dependent upon defective, or perverted or excessive action and secretion of the liver, as above stated, yields at once to its action. It acts as a tonic with the most marked effect upon muscular tissue generally, but more especially upon the stomach and bowels, remarkably increasing the tone and activity of above secretion. It is the remedy where the tone, as stated, is deficient, and where it has been produced by constantly taking pills to relieve the constipation, which only is increased by such a measure. This condition is readily changed, and a healthy action set up; muscular power and tone restored, and this done, the propelling power or force being regulated. It changes the character of secretions by regulating the action of neighboring visceral glands, as well as those of the upper portion of small intestines, overcoming congestion of the mucous membrane of the bowels and stomach, completely restoring their tone and muscular power. To cure cases of constipation, the result of carelessness, requires perseverance on the part of the practitioner, and a strict course prescribed as to avoiding cathartics, and attention to calls of nature promptly.

A description of the cascara I am unable to give at this time, but suffice it to say that it is a shrub, and in due time its botanical name will be known. I combine it, in hepatic troubles, with nux vomica in proper doses, also with nitro-hydrochloric acid, dilute, in suitable quantities, but more generally give it alone. In bad cases of dyspepsia with constipation.

℞ Fl. ext. cascara sagrada, ʒ j
Fl. ext. berberis aquifolium, ʒ j
Syrup (or ext. malt), ʒ ij.

M. Sig., one teaspoonful three times daily. In dyspepsia where the food and everything else is thrown up,

℞ Fl. ext. cascara sagrada, ʒ ss-ʒ j
Fl. ext. berberis aquifolium, ʒ j
Acid hydrocyanic dil., ʒ j
Syrup (or ext. malt), q. s.

to make a four-ounce mixture.

M. S. A teaspoonful after meals and at bed time. It may be combined in many ways with different drugs, which the practitioner will soon see if he studies the pathological conditions carefully, and I need say no more on this point. It will act as a cathartic if given in one or two-drachm doses; but this should never be resorted to if you wish to cure constipation. The dose I have given above does sometimes act so, but I invariably order at first a less dose. When it does not, after five or six days, seem to start the peristaltic action, give a little more.

I have written this paper in reply to the many letters received from physicians, asking how cascara may be used, and those who read carefully will find full information. I have not given cases from the fact of their being so numerous, and constipation so prevalent. Will write further hereafter.

Cascara, as a remedy for dyspepsia and constipation, will never have an equal. Those who understand the action of the gastro-intestinal tract—considering it as a whole, the digestive tract—need but little in the way of explanation, and probably will ask few questions. Have you a case of constipation in which the patient has taken "Ayer pills," or some other pills of the same kind, until they have destroyed all the muscular tone of the bowels and the stomach also, I prescribe:

℞ Fl. ext. cascara sagrada, ʒ j
Ext. of malt, ʒ ij
Syrup simplex, ʒ ij.

M. S. Teaspoonful three or four times daily, and wait upon the bowels twenty minutes at least every morning and evening, as the case may be, and you will have no trouble in curing any case of constipation caused by abuse or destruction of tone from cathartics.

Have you a case of constipation occasioned by want of secretion from the gastric follicles? Give:

℞ Fl. ext. cascara, ʒ j
Fl. ext. berberis aquifolium, ʒ j
Ext. malt, ʒ ij.

M. S. Teaspoonful three or four times daily.

If you have a case of indigestion in which your patient throws up everything taken, give

℞ Fl. ext, cascara, ʒ j
Ext. of malt, ʒ ij
Fl. ext. berberis aquifolium, ʒ j
Acid hydrocyanic dil., ʒ j.

M. S. Teaspoonful directly after meals, or oftener if there is pain or distress, with belching of gas or wind from the stomach. If there is simply constipation, give the cascara alone. If with any of the above symptoms there seems to be a sluggish liver, give nux vomica in proper quantity, if the cascara does not seem to influence it properly. I speak of nux vomica as simply a resort if need be, but nine times in ten you will not resort to it. If the dose of cascara recommended does not produce the desired effect, or produces too much action, it is expected that the physician himself will and must exercise some judgement in its administration, as in all drugs, and that he will carefully watch its action in every particular. The subject under consideration is one of great importance, and one that more frequently, perhaps, baffles the skill of the best physicians than any other malady, and one that the doctor is generally willing to—kinder—let pass by than any other, from the fact that somehow he does not succeed in his treatment, and the patient becomes tired of constantly being physicked now and again for the torpid condition of the liver and bowels, but wants something that will restore the general tone of the bowels without cathartics, and in the cascara, with the above combinations, no practitioner will be disappointed, if he observe the pathological indications carefully, and in no other way need the practitioner expect to succeed with any remedy.

To sum up, as a whole, the action of cascara, let me say that it is indicated where there is laxity, or a want of tone in muscular power or glandular secretion, and that of the mucous membranes also. Many letters I have received from different portions of the United States confirm my own statements in its regard, more too.

2.

Report from H. C. Barnard, M. D., Charleston, Ill., (New Preparations, April, 1878, p. 37.) I have used cascara sagrada in my own case and believe that in it we have a valuable remedy. Acting as an eccoprotic, without subsequent debility, and so powerfully promoting peristaltic action of the lower bowels, as to defy a "putting off, until a more convenient season."

3.

Report from New Preparations, April, 1878, p. 42. This is one of our newest comers, yet it is fast winning its way to the confidence of the profession as an excellent remedy in atonic constipation. Its action is a peculiar one, not being cholagogue in its nature, but rather a stimulator to the unstriated muscular fibre of the intestines, through its action upon the sympathetic nerve, thus increasing the vermicular movements of the intestines. In this it resembles, somewhat, nux vomica or strychnia. Its action, however, is somewhat different from this powerful drug, in the fact that the stools are softer. Then too its taste is not unpleasant, whereas the strychnos nux vomica is intensely bitter. It also is less objectionable, from the fact it is not poisonous, or no more so than our milder series of drugs, thus rendering it safer to be prescribed in those long standing or chronic cases.

A distinguished college professor, whose name would be familiar to most of our readers were we to mention it, tells us that in his own case it acts the nicest of anything he ever tried. Fifteen or twenty drops three times a day is all that is wanted, and it is devoid of all unpleasant sensation in its action. He is waiting until he has tried it upon others before he publishes a report of its action over his own name.

From his report of its good qualities, and from the reports of many others, we think cascara sagrada will take equal rank with grindelia robusta in the physician's armamentarium.

4.

Report from S. E. Pearse, M. D., Oakland, Cal. (New Preparations, July, 1878, p. 57.) Having had my attention called to cascara sagrada, by my friend, Dr. Bundy, I have been using it in a number of cases, with the following results:

Case 1. A gentleman, about 35 years of age, generous liver, but entirely temperate; had been affected for years with inactive liver and constipation, with very stubborn ulceration of the rectum. His skin was sallow, strength feeble, etc. He has been having constant and varied treatment, without relief. I prescribed cascara alone, with direction to use one teaspoonful once or twice a day until the bowels opened, then in reduced doses sufficient to secure a natural action, but to fall short of producing catharsis. He being a stock

broker, I sent to him not long after, on some business connected with a mine. After answering the business, he added: "Send me another bottle of that medicine; there is more money in it than in the mine." He continued the use of cascara a little longer, and is now gaining flesh, skin clear, bowels regular, liver active, and the ulcers of the rectum very much better, and steadily improving.

Case 2. A lady in San Francisco, middle-aged. Has had constipation so stubborn, that for years she has had no action of the bowels without an injection of water; hemorrhoids and prolapsus of the bowel so bad, that this action was always secured just before retiring at night, in order to have the benefit of a recumbent position, to allow the bowels and tumors to resume their natural position. I prescribed cascara alone, with directions as in the other case. After the use of two ounces she sends me word that she has not been so well for years; bowels regular, and the hemorrhoids and prolapsus so far relieved as to render her comparatively comfortable.

Other cases.—I have prescribed the remedy in quite a number of other cases, with results which have led me to the following general conclusions; 1. In cases where there is torpor of the liver, with an atonic condition of the stomach and bowels, it is the very best remedy I have ever tried. 2. That the more concentrated the remedy, the more active it is, even though the same amount be given. Indeed, I have in several cases, when the constipation has been but moderate, given it in a diluted form, and have found that it greatly increased the difficulty; but the administration of a concentrated preparation gave relief. It seems to be one of those remedies that have two opposite effects, according to the amount given, and especially according to the dilution of the preparation. 3. Combined with the properties indicated above, it has a manifest tonic influence on the liver, the stomach and the bowels. In my opinion, it possesses, in addition to its curative effects in constipation, all the properties of the wild cherry, but in much greater intensity. I am inclined to think, also, that it possesses decided cholagogue properties. I esteem it a very important addition to our materia medica.

5.

Report from George W. Smart, A. M., M. D., Canaan Four Corners, N. Y. (New Preparations, July, 1878, p. 58.) Although in these days of nostrums I have somewhat of a conservative feeling, I procured, through John T. Fink, of New York, a small supply of cascara sagrada ex. fl., and having given it a fair trial in several cases, desire to report progress. My testimony is, that the introduction of this medicine is a boon to the profession, Dr. Bundy claiming for it no more than its actions justify.

As a cholagogue, I have had a personal experience; find it just as certain, but a little slower, than the blue mass, for which I am glad to find an efficient substitute, free from the harshness of podophyllin, etc. In chronic constipation it is invaluable; its action good, producing full, easy, pleasant stools, without any tormina, tenesmus, or nausea. In dyspepsia it is superior to many other remedial agents, in that it is pleasant to take, and produces no nausea. In such cases I prefer to give it without the syrup, substituting glycerine.

6.

Report from I. J. M. Goss, M. D., Marietta, Ga. (New preparations, July, 1878, p. 65.) I have tried Parke, Davis & Co.'s fluid extract of cascara sagrada in a very marked case of dyspepsia and constipation. In this case there was a deficiency of secretory power in the liver and glands of the alimentary canal, indicated by constipation, scant, dry stools, flatulency and indigestion. I gave 40 drops of the above fluid extract twice a day, and the first day it produced two or three soft, bilious stools, with increased appetite, and improved digestion. In a few days the patient was relieved of the constipation and dyspeptic symptoms. I have not found any remedy that acts so promptly. It at once arouses all the secretions. It has the most direct power over the liver of anything I ever used. It is the remedy par excellence in constipation, if given in small doses, say 30 to 40 drops; if given in large doses it will purge, and is rather inclined to gripe, but it operates mildly as an aperient in small repeated doses.

I am of the opinion that it increases the action of the pancreas and gastric glands, as well as that of the liver. There is nothing that more powerfully improves the digestive power than small doses of the cascara sagrada. Dr. Bundy has conferred an inestimable blessing upon the profession, and the sick, by introducing this, as well as some other new remedies.

7.

Report from C. C. Dellenbaugh, M. D., Portland, Mich. (New Preparations, July, 1878, p. 67.) I have never used any kind of treatment that has acted so grandly, if I may use the term, as cascara sagrada has in my practice. I have prescribed the same in over a half-dozen cases of obstinate constipation, with the best of success, restoring a healthy action in every case.

8.

Report from Alex. M. Cheek, M. D., Nashville, Tenn. (New Preparations, October, 1878, p. 80.) Mr. C., professional man, 30 years of age, has been troubled with obstinate constipation for over 6 years. He attributes the cause to close sedentary habits while a student. He states that his bowels were regular before he entered upon the arduous duties of student life. He tells me that he has tried every medicine for constipation, from podophyllin down to "Simmons' Liver Regulator," without finding a cure. I put him upon cascara sagrada, doses three times daily. He has now been taking the medicine over three weeks; he reports that he feels decidedly better, that his bowels are regular, and that he feels that he is on the high road to recovery. The future of cascara sagrada is flattering in the extreme. I deem it the greatest known remedy for constipation we have at the present day. I esteem it a very important addition to our materia medica.

9.

Report from J. G. Sutton, M. D., Geneva, Ohio. (New Preparations, October, 1878, p. 83.) In reading of cascara sagrada, which is so highly recommended through your journal, I concluded to try it in that much dreaded disease, constipation. Accordingly I ordered some of Parke, Davis & Co. I tried it in a number of cases. in which it worked well, and in one case, which was especially interesting to me, it did more than I expected. I was called to visit Mrs. S., who had been sick for the last three years, in the last two of which she had not had a natural evacuation of the bowels, always being compelled to use an enema, which often failed to produce the desired effect; sometimes she would pass three or four days without an evacuation, although using an injection every day. She had taken cathartics without any benefit from a half dozen physicians from all schools, had adopted hygienic measures and carried them out well, but to no effect. I gave her

℞ Fluid extract cascara sagrada, ʒj.
Fluid extract berberis aquifolium, ʒj.
Syrup, ʒj.

and ordered her to take a teaspoonful four times a day, until her bowels acted freely (as I had forgotten to state, her bowels had not moved for four days when I first began its use), then but three times a day; the desired effect was soon produced. The dose was diminished one teaspoonful per day. and before she had taken the second prescription, she said she needed no more medicine, and now she appears natural in that respect.

10.

Report by C. W. Hansen, M. D., Oakland, Cal. (New Preparations, October, 1878, p. 84.) When camping in a little valley at the foot of Mount Shasta, about a year ago, I was consulted by Mrs. S. She had been a sufferer for 5 years, she said; had been to all the springs, and tried all the doctors in the country, without obtaining more than temporary relief. Her case was plain enough: sallow complexion, general emaciation, broad, flabby tongue, coated with a thick, yellow fur, foul breath, cardialgia, headache, a feeling of faintness and drowsiness, relieved for a short period by eating; habitual constipation, etc., all denoting a bad case of atonic dyspepsia. On examination I found the liver enlarged, regular in outline, with considerable pain on pressure over the left lobe, evidently due to congestion. Uterine functions but slightly disturbed, and no visible organic lesion. I could find no fault with her diet or general mode of living, and concluded, on the whole, that I had a very stubborn, if not hopeless case. On my return home I forwarded her ℥ iv cascara sagrada, directing her to make a tincture with a quart of whisky, and to take a teaspoonful of the mixture undiluted directly after eating. I saw her again about a month age, a well woman. She had experienced relief within a week, and the improvement had been steady and uninterrupted. I report her case, because I consider it typical of a large class commonly met with, and often a source of great annoyance to the practitioner. The cure I attribute to the stimulating properties of the whisky, and the action of the cascara in restoring a healthy tone to the gastric and intestinal glands and follicles.

Before closing I must speak of the cascara in hemorrhoids. When the disease is due to obstructions in the alimentary canal, it certainly acts like a charm; while other cathartics increase the trouble by irritating action on the mucous membrane, the cascara is soothing and effective at the same time, and if taken persistently in small doses, will cure the disease entirely in the majority of cases.

11.

Report from C. M. Sparks, M. D., 1333 Eastern Avenue, Cincinnati, O. (New Preparations, October, 1878, p. 85.) I have tried Parke, Davis & Co.'s preparation of cascara sagrada in a great many cases of constipation, and it has not failed to give the best of satisfaction in every case. Mr. S., a bad case of constipation, compelled to take physic every week.

℞ Fluid extract cascara sagrada, ℥ j.
Simple syrup, ℥ iij.

M. Sig.—Teaspoonful three times a day. In one week reported himself regular as a clock, only having to use ½ teaspoonful three times a day. I could report many cases with equally good results, but let this suffice for the present.

12.

Report from D. M. Wick M. D., in Arkansas Medical Record. (New Preparations, October, 1878, p. 101.) Not long ago I received through a friend a sample bottle of the above named drug in the form of a fluid extract, manufactured by Parke, Davis & Co., Detroit, Michigan, and was requested to give it a fair trial in torpidity of the bowels. I happened to have on hand at the time several cases that I thought would be favorable subjects for such a trial, and to which I at once administered the article. To avoid any uncertainty of the effects, I withdrew all other remedies, and gave the drug simply diluted with half glycerine and aromatic water, in teaspoonful doses, thrice daily. To my surprise and delight, I found that my patient soon began a rapid improvement, and continued to do so even after I had withdrawn the medicine for some time. It seemed to act as a special tonic to the gastro-intestinal tract, and increased to a marked degree the glandular secretions.

The noticeable improvements in these cases while using cascara sagrada may be a simple coincidence, but I hardly think so, for I had them under observation for some time before administering the drug, and when withdrawn for a time and then repeated, the same effect were observed.

I shall not offer any theory as to its action, but may do so at a future time, when I have had further experience, and will then give my opinion as to its utility.

If cascara sagrada will but approach the expectations of those who have thus far tried it, and what is claimed for it, it will at no distant day become one of the standard preparations and a favorite with the profession—for the number of individuals who are troubled with constipation is very large, and apparently on the increase—as a result of immoderate use of active purgatives.

It has the advantage of being comparatively pleasant to take, and the dose required is but small, which is strongly in its favor; but, unfortunately, it is rather expensive.

Dr. J. H. Bundy, of Oakland, California, I believe, was the introducer or describer of its qualities, although it is known to have been freely used by old Spanish residents on the Pacific coast.

13.

Report from F. Gundrum, M. D., Ionia; Mich., (New Preparations, January, 1879; p. 2.) Since the history of man this morbid condition (constipation) has annoyed and discomforted innumerable invividuals, while in a great many it has become the source of great mischief, and in not an inconsiderable number it has actually been the cause of death.

The subjects of constipation have been, and still are, the subjects of much bad treatment, either at their own hands or at those of quacks, and sometimes of even regular practitioners. Usually, the sufferer first tries home remedies, after which, in this country, he goes to the drug store, and either subjects himself to the advice of an ignorant druggist, or buys a patent medicine. These means failing, he consults a physician, and here, in too many instances, he is turned off in a few moments with a "favorite prescription." Generally, all the physician inquires after is how long the patient has been constipated, and how often he or she has an alvine evacuation. The question of making a correct physiological, pathogenic or pathological diagnosis is entirely ignored. When one remedy fails another is tried until the whole therapeutical implements of attack are gone through with.

While infrequent evacuation, or constipation, is very prevalent, all who are thus affected should not be considered in a pathological condition. There are, doubtless, many individuals who have alvine evacuations only once in two, three, four, or even more days, and yet are in the realms of a physiological condition. Two individuals may have the same number of passages, and one be constipated while the other is not. Hence it will be seen that care should be used before prescribing to see whether we have to do with a normal or abnormal condition, and this is not always the easiest

thing in the world to determine. It is often difficult to say where the physiological process ends and the pathological begins. This much may be said, however, that physiologically inactive bowels are much more prone to take on pathological action than where there is no such torpidity.

Now, it should be remembered that what may be designated pathological constipation is not a disease in and of itself, but only a functional derangement of the alimentary canal. The causes and diseases on which this derangement depends are very various. The quantity and variety of food, the process of digestion, the quantity and quality of the secretions which are poured into the alimentary canal, muscular contractility of the intestines, abdominal walls and diaphragm, nervous enervation, quality and quantity of the blood, condition of sphincter ani, habit, etc.—these, with all general and organic troubles that may influence the proper and timely expulsion of the alimentary refuse, should be brought into view before prescribing.

The conditions I wish more particularly to call attention to in this article are muscular sluggishness of the intestines, and an improper and insufficient supply of secretions. It is well known that, in order to effect the timely expulsion of the refuse material in the intestines we must have sufficient muscular contractility, and that the fæcal mass must possess a certain amount of moisture on its surface, or the intestine must itself be bathed with a moisture or secretion in order that the mass will glide along easily. If either one of these conditions fail the fæcal mass will certainly have great difficulty in making its passage, and its progress will finally be arrested in the large intestines. The bad effect of this arrest on the general system is well known to all medical men of any experience. The digestion must become impaired, and so with assimilation. The noxious materials, absorbed from the fæcal mass materially and seriously affect the whole nutritive process and produce innumerable abnormal nervous phenomena.

Before giving my experience with cascara sagrada, I wish to relate two cases of obstinate constipation, as showing what serious trouble may be produced, and how easily the difficulty was overcome by what I consider rational treatment, after every effort for several weeks previous had failed. Mrs. X., æt. 34, nervous temperament, was confined of her fourth child sometime in December, 1870. She made a tolerable recovery, but was very costive for three months following. A month before I saw her in consultation, only a few small scybala passed her bowels once in four or five days. Her abdomen became flatulent, she lost her appetite and strength, and when I saw her with Dr. C., she was confined to her bed. On exploring the abdomen I found in the left iliac fossa an oblong, hard, painless swelling, of about the size of a small child's head. Nearly, if not all the laxative, hydragogue and drastic cathartics had been used with much more persistency than success. I advised warm fomentations to the abdomen, manipulating abdominal walls, and injection of warm water by long rectal tube while patient was partially inverted. By this method we succeeded in bringing away quite a quantity of dry, hard fæcal matter; but this treatment failed to improve our patient. There was but little change in her general condition, and the tumor diminished but slightly. It was during the second year that I had branched out on my own responsibility, and this case gave me the usual anxiety of a young practitioner's first difficult case. My library was as meagre as my funds, consequently I had to rely on my wits. I prescribed for this patient one pint of good olive oil and one-sixth grain strychnia in fractional doses during twenty-four hours. By this treatment, provided my patient would retain it, I expected to soften up the hard fæcal mass and give tone to the muscular tissue of the large intestine. The result surprised us all. On the fourth day our patient began to have alvine evacuations. Their character was more like pieces of sealing wax nicely oiled than anything I could think of. These evacuations continued in large quantities each day until the tumor entirely disappeared, and the patient rapidly recovered to health.

Case 2. Mr. F. was habitually costive for some years, but during the last of November, 1873, he became worse. About the middle of December he took to his bed and employed an "S. S. Curantur," who treated him homeopathically in every respect. He put him on low diet and opiates. The patient himself had noticed that there was a swelling forming in the right iliac fosa. He called the doctor's attention to it, and received the assurance that "That'll be all right." He was troubled a great deal with flatulency, and the doctor prescribed that the patient, several times a day, should reverse ends and give the gas in the bowels the advantage of gravitation. But this prescription failed. Another and regular practitioner was called in, and three weeks later I was called as counsel. Patient had become much reduced, and was unable to be out of bed, had flatulent distension of abdomen, loss of appetite and very offensive breath. In the right iliac region there was a large tumor, nearly round, hard, painless and immovable. The attending physician had diagnosed it fæcal impaction in the cæcum, in which opinion I concurred. The treatment ordinarily recommended in several of our best text-books had been used with good skill and perseverance, but little benefit resulted. The olive oil and strychnia were prescribed with like happy result as in the first case.

The treatment prescribed for these two cases is original with me, and the result was all that could be wished.

Case 3. I have had under my care for the last three or four years a young lady who has been leading an absolutely sedentary life—not being able to walk a step. She has been the subject of obstinate constipation for many years, owing in all likelihood to poor health and sedentary habits. I had exhausted everything in the materia medica with but temporary benefit. During the early part of last spring I saw, through some source which I do not now remember, a few reports of cases of constipation having been treated by cascara sagrada. I had been deceived by several new therapeutic agents, either owing to misrepresentation of the physician who lauded the remedy, or to being unfortunate in getting hold of a bad or spurious article of the drug, and was loath to try this. But as there was nothing more for me to try, I resorted to it. I ordered the fluid extract cascara sagrada in half-teaspoonful doses with some water or thin syrup three times a day, with the instruction, should this fail to regulate the bowels, to gradually increase the dose. In two weeks I saw my patient. She looked well, had gained flesh, complexion was clearer than I had ever seen it, and she had a daily evacuation of semi-solid and molded fæces. Cascara sagrada has acted beyond my expectations on this unfortunate girl, and so far has not disappointed me in relieving the constipation when it took place.

Obtaining such decided and happy results from a remedy, I concluded to give it an extended trial, which I have done. The cases are too numerous to report, and I can only give the general result of my observations. I have tried it in the young babe, in the child, adult and aged and in nearly every case with good results—better than with any other remedy or combination of remedies I have ever used. I have generally given the remedy by itself, so that I might know what cascara sagrada would do, though I have associated it with other remedies to advantage.

I have given this remedy to infants from half to a month old in doses of three to five or six drops, once, twice or three times a day, with good results.

The beauty of the action of the remedy is that it produces no griping and no exhausting effect, *e, g.*, a patient does not feel like he or she needed toning up after experiencing the effects of the medicine.

I have not as yet seen an attempt at explaining its mode of action by anyone. So far as my individual opinion is concerned, I consider it a special tonic affecting both nervous supplies, the pneumogastric and sympathetic, of the intestinal, if not of the whole alimentary canal. One seems to wield a decided influence over the secretions, while the other over the motion. Be this as it may, I shall consider this medicine as a special tonic to the intestines and a great addition to our materia medica, until the contrary is proven by the experience of the profession or myself. I do not vaunt it as a panacea, but assert that it is one of the best, if not *the* best, of remedies for constipation we possess.

The dose varies. In moderate cases I usually begin with fifteen or twenty drops two or three times a day, and gradually increase till the desired effect is produced. In more obstinate or severe cases I begin with a half drachm. I usually give it before meals.

I have used the fluid extract manufactured by Parke, Davis & Co., which has proved reliable every time.

I also use cascara sagrada as a cathartic in preference to the usual remedies. It acts gently, promptly and without griping.

14

Report from J. H. Bundy, M. D., Oakland, Cal. (New Preparations, 1879; p. 6.) But lately introduced to the profession, the physiological action of this drug requires further elucidation. Its tendency is towards the glandular system—especially the secretory. I believe it to be the peer, and in many cases the superior of chionanthus; its action in stimulating the secretions of the liver, bowels, and the entire alimentary canal is most satisfactory; it influences the ganglionic (vegetative) system, and through this stimulates all the organs under its control; it especially influences the portal circulation, and thus is explained its wonderful effect upon hemorrhoids. In giving it for this affection, it must be given in small doses, sufficiently small to fall far below catharsis. It increases peristalic action by its tonic and stimulating properties upon muscular fiber, producing contractility and tonicity. When its properties have become thoroughly known, its range of applicability will be found to be very wide. Were it a remedy for no other malady than constipation, its value could not be estimated. In chills, or remittent fever, doubtless owing to its action on the liver, it seems to act charmingly, and will prove a valuable adjunct in that direction. I have at the present time three cases of remittent fever, in which I never saw anything act so promptly and kindly, as a hepatic and antiperiodic as the cascara. I give it in small doses: fld. ext. gtts. xx, every two hours, until it acts upon the bowels. With aconite and gelsemium, it arrested the disease in forty-eight hours. In cases in which there is jaundice, dry skin, scanty and high-colored urine, with marked dullness, and tendency to coma, cascara has in my hands been a perfect success.

I am glad to notice the tests to which the profession is putting this drug, and hope that these tests will be continued, satisfied as I am that they will result in firmly fixing cascara in the materia medica. It is, however, in constipation and dyspepsia that I am disposed to place most faith in it.

The name, though vulgar, and of Spanish derivation (meaning sacred bark), does not affect its physiological action. I have sent such specimens as I have been able to obtain to Prof. Scudder, and hope he may be able to name it, as without the flower, I am myself able to do so. I trust we shall have further reports on the remedy from all sources.

[NOTE.—Since receiving the above communication, cascara has been botanically located. It is the rhamnus purshiana.—ED]

15.

Report from Dr. C. M. Galloway, Xenia, O. (New Preparations, January, 1879; p. 10.) During the past year I have had ten cases of chronic constipation under treatment, aggravated by the almost constant use, for years, of compound cathartic pills, and those so-called "liver pills," whose stereotyped testimonials of "marvelous cures" are so freely displayed and advertised among the masses, and occupy so prominent a position on the counters of the drug stores in our midst. A few of these cases I desire to report to you, and the beneficial results derived from the use of P., D. & Co.'s fl. ext. cascara sagrada.

Mrs. M. for 14 years has suffered from rupture of perineum at birth of her last child, falling of the womb, and obstinate constipation, which has increased in its princious results upon her system during the past few years, until life was rendered miserable. In July she came under my observation, and I immediately put her on the following:

℞ Fl. ext. cascara sagrada, ʒj.
Syr. simp., water aa ʒjss.

Sig. One teaspoonful after meals.

This treatment was continued for six weeks, when such favorable results appeared that the dose of one teaspoonful at bed-time was sufficient, and now she reports herself as only needing the remedy about twice per week. Her digestion has wonderfully improved, and her strength has returned, and she says she feels like another woman.

Miss B. had been under homœopathic treatment for two years before she came under my care in August. For years she had suffered from dysmenorrhœa, dyspepsia and constipation, and was regarded by her friends and attending physician as in a state of rapid decline. I put her on the prescription of cascara sagrada as above mentioned, in case of Mrs. M., and to-day she reports herself well. She has felt no symptoms of dyspepsia for more than one month, and the condition of constipation has entirely disappeared, and what to my mind is more gratifying, the dysmenorrhœa has yielded promptly to treatment, due chiefly to the general tonic effects of the cascara sagrada. She walks the street with firm step, and the bloom of health upon her cheek. She is elated with the result of the treatment, and her friends rejoice in having her restored to them in such perfect health.

16.

Report from Wm. M. Beaver, M. D., St. Charles, Iowa, (New Preparations, January, 1879; p. 12.)

Case 2. Mrs. S. M. C., middle-aged, has been troubled with habitual costipation for years, and had given up the idea of ever getting anything to help her until I prescribed the cascara sagrada to her, and she has used but one two-ounce bottle and commenced on the second, and expressed herself perfectly delighted with the medicine, and also expressed herself as being cured. The last bottle she got was merely to keep in the house in case of necessity.

I would add that I could give many more cases with the same good results, but suffice these two cases for the present. Cascara is also an efficient remedy in hemorrhoids. I could give a number of cases cured by its use.

17.

Report from J. G. Harvey, M. D. Extract from report read before the District Medical Society of Central Illinois, Oct. 29, 1878. (New Preparations, February, 1879; p. 31.) This is a shrub found in California, and introduced through the house of Parke, Davis & Co., by J. H. Bundy, M. D., of California. It is almost a specific in habitual constipation. Its action on the secretions and circulation is positive, and, without producing either nausea or other disturbances, it stimulates and improves digestion. Experience has demonstrated its action to be principally through the sympathetic nervous system, and especially the solar plexus. The reports of its use from a large number of physicians, and from different parts of the country, strongly confirm the statements of Dr. Bundy as to the good results obtained by its use in habitual constipation, and it will doubtless take its place in our materia medica as as a valuable therapeutical agent.

18.

Report from C. Henri Leonard, M. D., in Michigan Medical News, (New Preparations, February 1879, p, 42): As a gentle cathartic, I have come to conclude that we have few remedies better than the rhamus purshiana. Since its first appearance on the market, I have continuously made use of it in my practice, especially in female cases.

Constipation is a factor in nearly every one of the individuals of this sex that apply for treatment for trouble incident to their uteri, and it is a symptom that needs immediate attention, should we hope to speedily benefit the general and special health of our patient.

My usual combination is with potassic bromide, ergot, nux vomica and belladonna, and it makes an excellent cathartic (I do not think it is especially alterative) adjunct to this utero-sedative and tonic mixture. The formula is based somewhat as follows, of course lessening or increasing the amount of the individual remedies as circumstances may require:

℞. Rhamni Pursh, fl. ext.	32	∞
Ergotæ, fl. ext.	32	∞
Potassii bromidi	16	∞
Belladonnæ, fl. ext.	4	∞
Nucis Vomicæ, fl. ext.	6	∞
Aq. Camphoræ, q. s. ad	128	∞

M. S. Teaspoonful in water after meals.

Oftentimes I give dose at bed time if the bowels are more than ordinarily indifferent to laxatives. In this class of cases there seems to be a sort of semi-paralysis of the intestinal nerves, thus inducing that wind-bloating of the bowels so frequently seen in these uterine cases. The nux vomica, by toning up the indifferently acting nerves, increases the peristaltic movement of the intestines, thus producing a more natural action of the bowels, and so, soon renders so large a dose of the cascara unnecessary. Sometimes, too, 16 grammes of the fluid extract in a 128-gram mixture is plenty to secure natural movements; especially is this the case in weakly-conditioned ladies. Still, as a rule, in all of my cases of uterine troubles I have found some sized dose of the cascara as indicated above of great benefit. It is a remedy, too, that I think can be taken for a long time with impunity; leastwise my patients, after securing a regular action of the bowels, have not been thrown back into their former bowel-lethargic condition on the withdrawal of the laxative.

As a simple cathartic, given in doses of a quarter teaspoonful (about one gram) of the fluid extract before breakfast, in a little cold water, it will be found excellent. It has the advantage, too, of being pleasant to take, having none of that peculiar mawkish taste of rhubarb that sickens so many, or of the ordinary salts (epsom).

19.

Report from E. S. Dunster, M. D., Professor of Obstetrics and Diseases of Women and Children, University of Michigan, (New Preparations, March 1879, p. 56): When the new laxative, cascara sagrada, was given to the profession by Dr. Bundy, the claims which he made for it were so extravagant that I was inclined to be suspicious of it. But as he fortified his assertions with cases that were apparently authentic, I concluded to ascertain for myself the value of the remedy. I accordingly procured from Parke, Davis & Co., eight ounces of their preparation, and with a courage possibly akin to rashness, I experimented first upon myself; for, as a result of long years of the sedentary life of a student, constipation had been established, and was an enemy I had never been able to dislodge. On the first trial of the medicine I was struck with the similarity of its taste to the buckthorn (rhamus frangula), a fluid extract of which prepared by Metcalfe & Co., of Boston, I had long used, and I said to myself, surely this must be some variety of the buckthorn. The recent announcement of its botanical name, rhamus purshiana, confirms this opinion. In my own case I found the medicine an agreeable laxative, producing in moderate doses a free semi-solid evacuation of the bowels without catharsis, or tormina, or disturbance of any sort; occasionally the dejections were somewhat frothy, as if soap had been mixed with the fæces. It did not impair the appetite, nor derange in any way the digestive functions, and after using it for some time I gave it to my patients. Now, after nearly two years trial of the remedy, and in nearly one hundred cases, I am satisfied that it is a valuable addition to our materia medica, but the claims which were first made for it as *curative* of constipation have in no one instance been substantiated. I have invariably found it is well bourne and that it has no tendency, even after months of continuous use, to destroy appetite or derange digestion. A laxative that will do this is certainly well worth having and using even if it cannot cure the constipation. The attacks recently made upon the remedy are too absurd to warrant notice, for, as has been well said, it will move the bowels just as readily under its local name of cascara, as it will if you call it rhamnus purshiana. But lest these attacks should have some influence in preventing the profession from employing it, I think those who have used it should make public their experience with it, so that a really valuable remedy may not fall into disrepute. As to the modes of using it, either alone or in combination with other substances, I have nothing to say at present, my only object now being to fulfil what I conceive to be a simple duty in calling attention to the value of the remedy.

20.

Report from Wm. Goldrich, M. D., Delaware, O., (New Preparations, March 1879, p. 58): I have used the cascara sagrada lately, in a case where no active cathartic could be borne in the stomach. I gave twenty drops three times in the twenty-four hours. It acted like a charm, and so grateful was my patient that she exclaimed, "Never did I take anything which acted so nicely." I gave it yesterday to an old lady 83 years old, with constipated bowels, and it acted so gently that she hardly knew she was physicked at all. Its results are successful, as every one who uses it will testify.

21.

Report from W. H. Rice, M. D., Modeste, Cal., (New Preparations, February 28, 1879, p. 59): By the kindness of Drs. Bundy and Hansen, of Oakland, I was induced to test cascara sagrada for constipation—acute and chronic—and although I have treated over two dozen old, stubborn cases that had resisted pills and purgatives, until the poor victims

gave up in despair, this remedy completely fills the bill. A few doses have afforded the desired relief without a single exception. It far exceeds any and every remedy known, I verily believe. Everybody that tries it speaks in the highest praise of its mild yet efficient effect. It is truly a welcome agent in the hands of the physician who will waive all prejudice and give it a fair trial. It only needs to become known to be appreciated.

22.

Report by I. B. Cargen, M. D., Millsville, Wis,, (New Preparations, March 1879, p. 89): Was called some six weeks ago to see a young female, who had not had an evacuation from the bowels for eleven days; prescribed heavy doses of podophyllin and leptandrin, which produced only one evacuation. Was called one week from that time to see her again, she not having had a movement of the bowels during the week. I prescribed:

℞ Cascaræ sagradæ, ʒ j.
Elix. simplicis, ʒ j.

M. Sig. Teaspoonful every hour.

Since which time she has been perfectly regular and well.

23.

Report from T. C. S. Berry, M. D., Pen. Ex. Surg., Houlton, Me., (New Preparations, March 1879, p. 59): A recent writer in Tilden & Co.'s Journal, N. Y., calls your cascara sagrada a humbug, stating he has tried it and it is a failure. I say, after a fair trial, that *it is unequaled in its action as a laxative.* I have used it extensively without a single failure, and it is growing in popular favor every day. Constipation is the curse of the times, as every physician knows. I never have found any remedy that gave me satisfaction till I used this, which is so far superior to anythig else that I should not know how to get along without it.

24.

Report from A. E. McDonnell, M. D., (New Preparations, April 1879, p. 86): I have tried the cascara, and find it a safe, easy and efficient cathartic. It is a desirable, and, I may say, and invaluable remedial agent, long needed, and not until recently supplied; if furnished in its purity, and not adulterated, as many of our remedies are, we have reason to feel grateful that we can rely upon its virtues, thus being relieved from that load of care and anxiety which practitioners so often feel in the uncertain action of medicines.

25,

Report from A. O'Neill, M. D., Meadville, Pa., (New Preparations, June, 1879, p. 140.) A remedy given to the medical profession by Dr. Bundy, of California for constipation, coming under my notice and being highly extolled by various physicians throughout the country, I was induced to give it a trial. It is a common saying among many in the profession, the longer we practice the more skeptical we are in regard to the *modus operandi* of medicine. This loss of confidence is produced from various causes. 1st. We must consider that medicines are nothing but relative agents; that the action of medicine upon the organism gives us merely a chain of facts, when given, merely to remove cermorbid conditions, or exalt or diminish certain physiological functions; that the greater the number of satisfactory results observed, the less progress will theoretic skepticism make; that this loss of confidence in medicine often arises from certain medicines giving unpleasant secondary symptoms, although the primary action of the medicine excites admiration and increases confidence, but not sufficient to prompt the incredulous to further perseverance; hence, a medicine is often cast aside and falls into disuse.

In a practice of seventeen years, I have had many forms of stomach and bowel indigestion, and have tried many remedies for the same, with varied results, but never had such satisfactory results, as I have had in the use of cascara sagrada. It has peculiar effects upon the alimentary tract that should give it prominent distinction among the many old and reliable remedies of the pharmacopœia. In our search after instraction on any department of medicine we should not be in haste in accepting conclusions for fear we might establish a *post hoc* for a *propter hoc.* Especially is this caution necessary in the *modus operandi* of medicine. But as Emerson says "the knowledge of having done the thing before increases courage."

A Miss T., of this city, eighteen years of age, consulted me concerning what she considered a too frequent menstrual flow. I found that she had in conjunction with this, chronic pelvic peritonitis which, I think is a common occurrence in this country. Loath to move the bowels for fear of disturbing the peritoneum, as she was exceedingly constipated—stomach digestion apparently not disturbed—but a "colonic indigestion" very evident, I prescribed 30 drop doses of cascara sagrada, fluid extract to be taken thrice daily, as a test, ordered quiet, and to remain in a recumbent position. Saw the patient four days afterwards, when her mother, an intelligent lady, told me that the pain had gone mostly, and her bowels had moved, and without giving any disturbance to the neighboring viscera. This I would scarcely have expected from any laxative or cathartic in the pharmacopœia. The desideratum often desired in medicine is to avoid unpleasant secondary effects, although we are very anxious for primary results. There were none developed in this case nor in any of the several cases I have since used the medicine in. I painted the hypogastric region daily with the tincture of iodine, continued the cascara sagrada until her bowels moved daily and easily. This case was an unique or unusual one to experiment on with what was, to me, a new remedy; but from my knowledge of cascara sagrada, at this present sitting, I unhesitatingly, say it can be used under any circumstances where there is general lethargy of the bowels. I now frequently prescribe it in "colonic dyspepsia," with good results. Patients do not object to taking it; it is followed by no unpleasant secondary symptoms. I can most safely say it is a most valuable remedy in constipation. As to its *modus operandi* on the alimentary canal I shall not now stop to inquire, but content myself with the knowledge of the fact that Parke, Davis & Co., have introduced a boon to the medical profession for constipation. One thing I might say in regard to its action, that I believe it stimulates the entire mucous tract to action, and moves the bowels by virtue of the force it gives to secretion.

26.

Report from J. W. Van Winkle, M. D., Rochester, N. Y. (New Preparations, December, 1879, p. 299.) I was first induced to try the above new remedy as a last resort in a case of habitual constipation.

November 1878. Miss K., æt. 24, of regular habit, called complaining of abdominal distention, pressure or weight in the perineum, urine scanty, complexion sallow, skin harsh and dry, frequent attacks of headache, with severe paroxysms of neuralgia. the act of defecation occurring once in three or four days, and requiring violent straining, the excrement being pale, clay-like and very offensive, and patient complaining of a hemorrhoidal protrusion after defecation.

I prescribed first, after rising, citrate of magnesia, followed by a breakfast of oat-meal, or

cracked wheat and milk, with lime water and a cup of tea or coffee. For dinner, fish, mutton or poultry with few vegetables and no pastry. A light supper. consisting principally of milk, following each meal with lacto-pepsine, bismuth and soda āā grs. iij, directing the patient to take regular exercise in the open air, to make regular sittings at stool once in twenty-four hours. The following pill was also given:

℞ Ext. aloes, gr. xv
Ext. nucis vomicæ, gr, iij
Ext. hyoscyami, gr. x
Pulv. ipecac, gr. j.

M. Fiat pills No. x. S. One pill at bedtime.

After a week of this treatment a rest was taken and the constipation immediately returned as severe as ever, when an enema was resorted to. I then prescribed

℞ Ferri carb. "Vallet's."
Quiniæ sulphatis, āā ʒ ss
Ext. nucis vomica, gr. v
Ext. colocy. comp., ℈ j
Ext. gentianæ, ʒ ss.

M. Fiat pill No. xxx. S. One pill half hour after each meal. This also failed and I afterwards tried many of the common remedies of the day for constipation, which as often resulted in failure, and after four months of this kind of treatment I found my patient discouraged, and myself perplexed and disheartened. In my desperation I resolved to try cascara, and after reading all the literature on the subject I could find in New Preparations, I prescribed, April, 1879:

℞ Fl. ext. cascaræ sagradæ, ʒ j
Fl. ext. berberis aquifol , ʒ ss
Syr pruni Virginiani, ʒ jss
Ext. hyoscyami, fid. ʒ jss.

M. S. Teaspoonful three times per day.

After a few days the dose was gradually diminished, until only a teaspoonful was taken at bedtime, and one repetition of this prescription cured my patient entirely of constipation, headache, and neuralgia and only a few days ago she informed me she had not taken a particle of medicine since April; that she was now able to satisfy her appetite as to variety of food without inconvenience and that she never felt better in her life.

Case No. 2. Mr. M., a farmer about middle life. Habitual constipation with marked palpitation of the heart. I prescribed:

℞ Fl. ext. cascaræ sagradæ,
Fl. ext. berberis aquifol.,
Elix. simplex, āā ʒ j
Tinct. nucis vomicæ, gtts. xxjv
Tinct. digitalis, ʒ j.

M. S. Teaspoonful three times per day.

It was not necessary to follow this treatment long. In less than a week the dose was reduced to one teaspoonful in twenty-four hours, and the recovery seemed complete.

Case No. 3. An old German saloon-keeper living in one of the worst malarial districts of this city. Diagnosis, chronic cirrhosis of the liver, with gastro-enteritis.

℞ Fl. ext. cascaræ sagradæ, ʒ ij
Fl. ext. berberis aquifol., ʒ ss
Syr. pruni Virginiani, ʒ j
Acidi hydrocyan. dil., ʒ j
Morph. sulph., grs. ij.

M. Sig. Teaspoonful three times per day.

This treatment was continued for several weeks with the best of results, and the patient discharged much improved. But I doubt the possibility of bringing about a perfect cure in this case with any remedy without a change of location and a diminution of the daily allowance of stimulants.

Case No. 4. Mr. Geo. W., a railroad conductor aged about 55. Chronic varicose ulcer on posterior surface of the left leg about one inch above the ankle joint, an old ulcer of twenty years' standing, with a gangrenous appearance, the induration of tissues about an inch in diameter, with a cup shaped cavity, and very offensive odor. Mr. W., during the past twenty years, has been under the care of some of our ablest surgeons, with but little benefit, owing doubtless largely, to the fact that his occupation keeps him upon his feet most of the time. Prescribed:

℞ Fl. ext. cascaræ sagradæ, ʒ ij
Fl. ext. berberis aquifol., ʒ j
Syr. pruni Virginiani, ʒ jss
Sol. acidi arseniosi, ʒ ss.

M. S. Teaspoonful three times per day.

℞ Fl. ext. eucalypti globuli, ʒ ss
Vaseline, ʒ ij.

M. Ung. S. As directed.

After filling the cavity of the ulcer with this ointment and covering it with the absorbent cotton and a light bandage, I directed the patient to repeat the application night and morning, and return in one week.

The result was beyond the expectation of either patient or physician. The offensive odor had all disappeared and the whole appearance of the ulcer had changed. Healthy granulations were now forming, and the patient's general health had commenced to improve.

This treatment is still being continued with the most gratifying results.

Please find herewith a statement of my experience with some of the new remedies. I have for the past year or more been using the new fluid extracts of cascara sagrada, berberis aquifolium, damiana, grindelia robusta, yerba santa, yerb reuma and boldo, with many others, with the most gratifying success. I would say particularly for the cascara sagrada that it is truly entitled to all the confidence that is claimed for it in constipation. I have never prescribed a drug with as much certainty of rectifying that condition of the system that produces constipation. It more permanently establishes the secretions of the bowels than any other drug I ever used. Its action also is so mild and pleasant, no pain or sickness is produced, and yet it does its work so thoroughly. In short, it does what is required of it and no grumbling, I prescribe it as follows:

℞ Fl. ext. cascaræ sagradæ,
Fl. ext. berberis aquifolii, āā ʒ j
Syrupi simplicis, ʒ ij.

Mix. Sig. One teaspoonful after each mea., or one in six hours until it moves the bowels; then one teaspoonful as often as is necessary to move the bowels once or twice daily, for a few days or weeks and the work is accomplished.

27.

Report from J. H. Bundy, M. D., Oakland, Cal. (New Preparations, p. 141.) Was called on the first of March to see Mrs. R., aged forty years. I found her suffering with pain in the hepatic region, extending to the splenic. There was considerable tenderness on pressure, which greatly aggravated the pain—to the extent, in fact, that the patient would not allow much pressure or percussion. She further added that there was some trouble with the rectum, and that this, of the two, was much the more painful, and almost unbearable. Upon examination I found hæmorrhoidal tumors, both internally and externally. Bowels had not moved in four or five days; pulse 98; tongue coated heavily with a yellow coat; no appetite; occasionally sick at the stomach, with attempts at vomiting. I gave the following every three hours until it moved the bowels, and in three days the patient was up. Continued the medicine for ten days longer, when every vestige of the hepatic and splenic congestion, together with the piles, had disappeared, and the patient was discharged:

℞ Fl. ext. cascara, ʒ ij.

Sig. gtts. xxx, every three hours until the bowels were moved; then three times daily, or just enough

to produce one or more evacuations daily. About the second day the patient became quite jaundiced, and as soon as the bowels moved well, this rapidly disappeared. I have used it in other cases of jaundice, and find its action equal to the chionanthus, and it does not produce the nausea often produced by the latter.

Mr. H., aged twenty-eight, came for treatment, severely jaundiced, attended with marked constipation, which had existed for months; pain in right side and shoulder, with night sweats, etc. From careful examination, I found the case to be jaundice, from suppression, and gave the following:

℞ Fl. ext. cascara. ʒ j.

Every three hours until the bowels moved, which required three doses. After this I gave fifteen drops four times daily. Kept up the treatment for eight days, and discharged the patient. The patient informs me that he is taking the medicine in the quantity last directed twice a day, and that his bowels are perfectly regular.

28.

Report from The Medical Summary, (New Preparations, July, 1879, p. 183): We had our attention called to cascara sagrada a little over a year ago by a physician in one of our neighboring towns, who was then prescribing it; although we had heard about cascara prior to that period, we had never given it a trial, thinking it might be one of those much-lauded remedies without any particular virtue; but have since prescribed it in quite a number of cases where its use seemed to be indicated, particularly, in that most frequent and subtle malady, constipation, for which it is invaluable, its action being decidedly better than anything we have heretofore used.

It produces full, easy, pleasant stools, without any tormina, tenesmus, or nausea; neither is it very unpleasant to the taste. Twenty to thirty drops of the fluid extract two or three times daily is all that is wanted to perfectly regulate the want of, and to change the perverted secretions. It acts upon the hepatic secretions and circulation more positively than anything we ever gave before; constipation dependent upon defective and perverted action of the liver, as above stated, yields at once to its action: It acts upon the whole gastro-intestinal canal, stimulating its morbid condition, bringing back vitality, and stimulating the neighboring glands to healthy action, completely restoring their tone and muscular power. Given in small doses it is a valuable remedy in dyspepsia, increasing the appetite and giving tone and vigor to the stomach.

In bilious, intermittent and remittent types of fever cascara sagrada, combined with gentiana quinqueflora, in doses of from ten to fifteen drops each, administered every few hours until a good action upon the bowels is produced, then at longer intervals, will generally effect a cure in a very short time.

There is a large amount of cascara in the market which is unreliable. Our best results have always been obtained from that manufactured by Parke, Davis & Co., of Detroit, Michigan. We regard cascara sagrada as an important addition to our materia medica.

29.

Report from Am. Med. Journal, (New Preparations, July 1879, p. 184): We are continually having new remedies urged upon us. Some of them are good, others are good for nothing. Cascara sagrada is one of the most useful remedies that has been put upon the market for a long time. Who is it that has not felt the want of some drug that would gently but surely move the bowels and keep them regular without materially disturbing the stomach or other parts of the system? This want is felt most in the case of children. They can't take pills; castor oil is exceedingly disagreeable, and is generally followed by constipation. The fluid extracts of podophyllum and leptandra nauseate and produce griping, besides they are exceedingly bitter, and children take them with reluctance. But the cascara is clear of all these objections. It does not taste bad and when given in appropriate doses, no nausea, and but slight uneasiness is experienced from its use. The fluid extract may be combined with cordial, extract of malt or simple syrup, to neutralize the taste. For children 1 ounce of the fluid extract may be added to three ounces of any of the above articles, and the combination given in teaspoonful doses, every two or three hours, till the bowels move, then two or three times a day to keep the bowels regular.

This is a pleasant remedy; and while it is a pleasant one to take as an efficient cathartic or laxative, it seems to increase the glandular secretions generally, especially that of the liver. We can rely upon the cascara where anything of this class is demanded, and country practitioners can hardly get along without cathartics. While we do not prize them so highly as some people, we do find cases where they are demanded; then the cascara is appropriate. And I wish to impress it upon the reader, that this remedy has a tendency to *cure* constipation, a habit of local lethargy suffered by so many people.

30.

Report from C. S. Parkhill, M. D., Hornersville, N. Y. (New Preparations, August, 1879, p. 196). My attention was called through the columns of your journal to cascara sagrada as a remedy for constipation, and feeling the necessity for something more reliable than the remedies ordinarily used, I decided to give cascara sagrada a thorough trial, and for the past two years have been gratified with the result, and now consider it as the safest and most reliable of its class. I could give the history of several cases of obstinate constipation, some of which had resisted the usual remedies for years, but yielded readily to the influence of this drug, and when continued for a sufficient length of time, a cure was effected.

For adults I usually prescribe—

℞ Fl. ext. cascara sagrada,
Ext. malt, ää ʒ ij.

M. Sig.—Teaspoonful after meals.

For children, combine it with aromatic syrup of rhubarb, or simple elixir, in proportions to meet the indications of the case. By combining cascara with either, the bitter taste is so masked that it is rendered less objectionable to administer to children.

I have been informed by representatives of certain drug houses that cascara sagrada is probably a compound. Admitting that to be true, I consider it a fortunate combination for any suffering with indigestion and constipation.

31.

Report from E. Henderson, M. D., Portland, Oregon. (New Preparations, July, 1879, p. 166). I have have occasion to give cascara sagrada to quite a number of females, and in every case when taken during menstruation, the flow was increased, and prolonged even to prostration. I have also observed that in both male and female, if given in large doses—such as would produce an excess of three stools per day, that giddiness and prostration are produced. These symptoms pass off on stopping the medicine. I have obtained the best results from doses that would just produce a laxative effect, taken immediately after eating. The reports in your journal regarding this medicine are not a bit overdrawn—in fact, they are not complete; the future will prove

that this drug has a wider range of action than is now claimed for it. I *know* from experience; let every physician try for himself, then he will know.

32.

Report from O. S. Wright, M. D., Bradford, Pa., (New Preparations, July 1879, p. 167): Having used for a few months several of the recent additions to our materia medica, I have to say a word in favor of some of them.

Of cascara sagrada, my opinion is, that it is the best remedy I ever used for constipation. I have used it in about one hundred cases of constipation, with invariably good results. What I wish to note particularly is in the constipation attendant upon cancer of the stomach. I have prescribed for two of these cases. One of them has been under my observation nearly a year, and the cascara acts like a charm in relieving the bowels. Has had two severe attacks of hemorrhage lately, and probably will not last much longer.

The other case I merely prescribed for, and do not know subsequent history. I prescribed cascara in the first place out of desperation, as nothing I gave appeared to relieve, and obtained such good results as to use it again, but have not heard from the second case.

33.

Report from W. A. Buchanan, M. D., Paris, Ill., (New Preparations, August 1879, p. 196): The medical profession have long felt the need of a proper remedy in constipation. Whether it has been discovered in the new remedy cascara sagrada, yet remains to be more thoroughly tested. I have now been using it in my practice for some five or six months with the most complete success; in fact I have got the first failure to make in relieving my patient. I have treated some very obstinate cases of constipation, one in particular, a lady who had used injections for years as her only relief, but each one yielded readily to the remedy. Whether in any of these cases I have effected a permanent cure I will not venture to say. This much, however, I can state, several of my patients have discontinued it for several weeks and are still regular in their habits and have to all appearances completely recovered. I usually prescribe the following formula:

℞ Fl. ext. cascara sagrada, cc. gm. 30.
Syr. rhei, ar., cc. gm. 90.
M.

I direct my patient to commence taking a teaspoonful three times a day, gradually decreasing the dose, just using sufficient to keep the bowels in a soluble condition. I find as a rule that in the course of a week or ten days that one teaspoonful per day of the above prescription will suffice to keep the bowels regular, and direct my patient to continue it for four to six weeks. Of course I do not always confine myself to the above formula. I sometimes combine the cascara sagrada with ext. malt, lactopeptine or other drugs, as the case may require, always instructing my patient to be regular in his habits, also giving him careful instructions as to diet, etc.

34.

Report from A. W. Alvord, M. D., Clinton, Mich. (New Preparations, Sept., 1879, p. 225) In regard to cascara sagrada, I should not wish to practice medicine in a malarial district like ours without it. Its power over the secretions of the liver as well as the small intestines make it particularly adapted to those cases of bilious forms of constipation so often met in practice. The constipation of elderly people readily yields before it when followed by strychnia. The after effects in no case have been unpleasant. I have a high esteem for the new remedy.

35.

Report from Wm. Faulkner, M. D., Erie, Pa. (New Preparations, Sept., 1879, p. 226.) I have used fluid extract cascara sagrada in cases of habitual constipation with excellent results. By administering a mixture of cascara sagrada and syrup, equal parts, in doses of a teaspoonful, three times a day for three or four weeks, and then gradually and regularly decreasing the dose, I have been able to establish a habit of regularity, and eventually to effect a permanent cure. In no case have I been obliged to increase the dose after the first few days.

36.

Report from A. T. Van Vranken, M. D., West Troy, N. Y. (New Preparations, Oct., 1879, p. 253.) I have used fluid extract of cascara sagrada (rhamnus purshiana) in several cases of constipation, with very satisfactory success. In a case of paralysis which I treated in the Troy Hospital, where the patient was badly constipated, I found the cascara an efficient and pleasant laxative.

37.

Report from Geo. W. Cook, M. D., Syracuse, N. Y. (New Preparations, Dec., 1879, p. 303.) This comparatively recent addition to the medical armamentarium, has attracted much and deserved attention as a peculiarly valuable "new remedy." Being well aware of the proneness of American physicians to "ephemeralism" in medicine, I nevertheless am constrained to add my observation and experience regarding the remedy in that troublesome and widely prevalent disease commonly known as habitual constipation. I may premise that the positive, and perhaps, to some, extravagant, statements I may make, receive their emphasis from the experience I have had with this medicine in my own person—an experience which has paved the way for the use of cascara sagrada in a number of cases in practice.

A brief history of my malady may not be wholly uninteresting, as going to show the prominent features of a typical case of habitual and confirmed constipation with its attendant and induced complications.

I am fifty years of age, and for more than a quarter of a century have been in the active practice of my profession. While a schoolboy, and hardly well on my second decade, I found that I was more or less troubled with constipation, and that this difficulty increased with the lapse of time until the efforts to evacuate the bowels were attended with pain, the stools being streaked with blood. Then followed pain and hemorrhage, intensified while at stool, and soon, pain for several minutes, and eventually for hours, afterwards. Following this condition came positive impaction of fæces in the rectum and then hemorrhoids, which became so engorged, so inflamed and so painful as to be almost unendurable. I need not add that with all these were obstructed portal circulation, retained and regurgitating bile, gastric and intestinal irritability, flatulence—in short, confirmed dyspepsia, with more or less abdominal pain, cerebral congestion and a sallow, muddy chloasmic skin.

Thus the malady continued and steadily, progressed until the colon became so torpid as to be unable to propel its contents into the rectum, and for years the latter was but a depository instead of a passage way.

The residua of the ingesta were habitually lodged above the sigmoid flexure of the colon. The muscular coat and the sympathetic nerves of the colon had well nigh suspended their functions and refused their interposition unless goaded to action by laxatives, cathartics in increased quantities and frequency, or deluging enemata.

Of course the retained fæces engendered flatulence, and the flatulence caused enormous distension of the colon, attended with all degrees and intensity of colic—of confirmed colalgia—hope this word is not a neologism, if it is, is so because no legitimate term can sufficiently express my misery.

But during many of these long years I was continually confronted with the taunt so encrusted with age, "Physician, heal thyself!" but obedient to the injunction I have ever striven so to do, and am still my own champion, veteran patient, and am, thank God, at last a hopeful convalescent.

I have resorted to diet, to systematic exercise, to laxatives, to cathartics, to cerebro-spinal stimulants, such as nux vomica, which latter I have taken almost to tetanism, to belladonna, until nearly blind, to podophyllum, until my throat was as dry as Cullen's "Nosology," to rhubarb until my stomach seemed to be given over to acrobatics. Finally, and for more than 20 years last past, as a matutinal resort, I have employed large enemata of cold water, which served to temporarily excite the action of the muscular and nervous forces of the large intestine and which, therefore, became my only means of relief.

Without the enema, notwithstanding a full cathartic had been taken to contribute to the twinges of my "true inwardness," it was as impossible for me as it would be for Greenough's statue of Washington, to have an evacuation of the bowels.

Of course, it is not pleasant, perhaps not in good taste for one to parade his own infirmities before the world, but "other hearts must ache," and "there is in a balm in Gilead" for them too, and, thanks to Dr. Bundy, I have found it in a physical and important sense, and under the name cascara sagrada.

In June, 1878, while in attendance at the session of the American Medical Association, in Buffalo, I was presented with a sample bottle of the fluid extract of cascara sagrada, with a circular embodying the observations and comments of different practitioners regarding its therapeutical effects.

I examined its sensible properties, and regarding it only as a modification of the rhamnus catharticus —a dose of which latter, if it in the least transcends the limits of a laxative, will seem to turn one inside out—I laid it aside. But at a session of our Central New York Medical Association in this city in May last, I obtained another sample of the medicine from the same source and resolved to give it a fair trial. I at once prepared a mixture after the following formula:

℞ Fl. ext. cascara sagrada,
Simple syrup, āā ʒ j
Ext. malt, ʒ ij.

M. Sig. A teaspoonful before meals. Immediately I began the use of this prescription, and without any other aid, I had regular and comfortable morning evacuations of the bowels.

The morning lavements were discontinued, and have been ever since. The action of the medicine continues to be prompt, certain, painless, and the above dose, even but once a day, to this time, perfectly effectual.

I regard cascara sagrada as a peculiar tonic of the whole digestive apparatus, affecting in due proportion the muscular and nervous forces of the primæ viæ, correcting the hepatic and gastric secretions, as well as restoring normal and necessary mucus to the colon and rectum, thus lubricating and promoting the movements of the fæces. Its action, in proper doses, is essentially laxative, producing mushy or moulded stools tinged with the normal bilious hue.

And now, after a careful trial of this, to me, invaluable agent I am in better flesh, health and strength than at any time before for the last thirty years. I am rejuvenated. I am physically happy!

It will be readily inferred, in view of this experience in my own person, that I should resort to cascara sagrada in my practice, and although not meeting such prolonged and pronounced cases as my own, still I have not as yet been disappointed; and if this paper, hastily prepared at times snatched from the pressure of other duties, shall be the means of inducing other physicians to give the remedy a fair trial, it will prove a blessing to many fellow-sufferers.

Although Prof. Dunster states he cannot say the remedy has worked cures in his hands he will doubtless admit that a certain relief, an undisputed palliative, in such grave functional derangements is nearly tantamount to a cure.

37.

Report from E. W. Boyles, M. D., Clay City, Ill. (Therapeutic Gazette, 1880; p. 42.) Having for several years been greatly troubled with constipation, I was induced to try the cascara sagrada. I began the use of it as follows:

℞ Fluid extract cascara sagrada.
Simple syrup, āā ʒ j.

M. Sig. Take one teaspoonful three times per day, and I must say that it acted like a charm. It was but a short time until I had to take two drops only per day, and again only one, when finally I concluded I was cured, and stopped it altogether; but after a few months I had to return to it, but one dose per day now is sufficient. I have prescribed it in numerous other cases and it has universally given satisfaction. It is now a staple in our drug stores.

38.

Report from F. D. Thompson, M. D., Sherman, Texas. (Therapeutic Gazette, 1880; p. 43.) There has certainly been no lack of literature on this subject, and, doubtless, there is not a physician in the land who is not familiar, either from reading or from experience, with the properties of the drug. The reports have been so almost universally favorable as to create the impression that failure is impossible. Infallibility, however, is a rare property, whether of men or things, and our failures are frequently as instructive as our successes. The failure in a given case, of a drug whose success has been so uniform should lead to investigation which would establish more thoroughly the conditions of success, for all success is conditional. The report of the following case has had such an object in view: Mr. C. has suffered for five years from very obstinate constipation and its train of accompanying disorders. I first gave him a mercurial purge which relieved the headache and lassitude, due to the retention of cholesterine. Following this he was put on quinine, iron, strychnia, arsenic and aloes, given in combination and in the form of capsules. This combination failing to secure the desired evacuation, I resorted to cascara sagrada, with which I had previously treated some ten cases of constipation very successfully. The commencing dose was fifteen drops, three times a day; this

having no apparent effect, the dose was steadily increased until a teaspoonful, three times a day, was given; but, still, though continued in the latter dose for over a week, no action was secured. This single failure has by no means destroyed my faith in the drug, but has clearly demonstrated that there may be conditions present, idiosyncrasy or something else, which render it, in common with all other remedies, inoperative.

39.

Report from H. H. Baker, M. D., Cleveland, Ohio. (Therapeutic Gazette, 1880; p. 71.) About a year ago I reported decided success with cascara sagrada and berberis aquifolium. The lapse of time and repeated trials have only served to strengthen my faith in their usefulness. During the winter of 1876–7, having but recently recovered from a severe attack of pneumonia, I was greatly troubled with constipation. I procured a sample of cascara sagrada and began taking it; after using ten or twelve doses, taken carelessly and at irregular intervals, I was much surprised to find myself cured. For a year after this my bowels were as regular as need be; soon after this a slight return of the old trouble called for a correspondingly slight exhibition of the cascara, since when I have been sufficiently "regular" to enable me to "throw physic to the dogs."

40.

Report from C. W. Trask, M. D., Mantua, O. (Therapeutic Gazette, 1880; p. 71.) This drug was first brought to my notice by S. M. Luther, druggist, Garrettsville, O., who had used it successfully in his own case, and a prescription was put up for my wife. It was also used in my own case with marked benefit. I have also recommended it to Mr. D. Santora, of this place, using the formula given by Dr. G. W. Cook, of Syracuse, N. Y., in December (1879) number of New Preparations. Mr. S. had exhausted nearly the entire catalogue of laxatives, cathartics, etc., with the effect to render his last condition worse than the first, but he informs me that with the cascara he has natural, easy evacuations for the first time in months, with a general improvement in digestion, freedom from the terrible attacks of headache formerly experienced, and a very marked change for the better in his appearance. I give you the foregoing for what it may be worth.

41.

Report from Thomas H. Urquhart, M. D., Hastings, Neb. (Therapeutic Gazette, 1880, p. 71.) I have used fluid extract cascara sagrada in habitual constipation caused by torpor of the muscular structure and deficient secretion, and in every case it has fulfilled my most sanguine anticipations. It is particularly good in the constipation of pregnancy, and, in small doses, in the constipation of young children. I have recently used it with excellent results in a case of torpor of the bowels, following a severe attack of gastrodynia. In fine, it has furnished me the elegant and reliable remedy for habitual constipation that I have long sought for in vain, after using aloes, podophyllin, *et id genus omne*.

42.

Report from F. E. Daniel, M. D., Jackson, Miss. (Therapeutic Gazette, 1880, p. 125.) This statement may not be anything new, but still I am constrained to say, that in my experience, cascara sagrada does all that has been claimed for it. It has become a standard remedy with me, and indispensable. In duodenal indigestion, I combine it with malt extract and nux vomica, and have found when this condition is associated, as it usually is, with constipation, flatulence, headache, cold hands and feet, vertigo, etc., that the combination never fails of bringing relief.

43.

Report from J. R. Blackerby, M. D., Milford, Ky. (Therapeutic Gazette, 1880, p. 126.) Mr. P., merchant, called to see me in regard to the state of his health, saying he had consulted several physicians, all of whom treated him for dyspepsia. After talking with him for some time, and learning that his bowels were seriously constipated, and that he suffered greatly from sour eructations, I determined to test the virtue of cascara in his case. He stated that he seldom had an action without resorting to an active dose of medicine, or using a warm water enema, and frequently passed as many as 7 days without an action of his bowels. I prescribed one drachm fluid extract cascara in water three times a day. Several days after he called again, and said that after the second day his bowels had acted from two to three times a day, and asked if I designed the medicine to act so freely. I directed him to take 20 drops three times a day in the future, and if the medicine seemed too active, to still further reduce the dose. Two weeks after he came to the office, and reported himself cured, having an action every day from taking 20 drops at bedtime. After some advice to him I prescribed:

℞ Cascara Sagrada, fluid extract, ʒ j.
Nux vomica, fluid extract, ʒ ij.
Aquæ, ʒ v.

M. Sig.—A tablespoonful morning and night.

From this time on he has experienced no trouble with his bowels; his stools are regular and healthy, the sour eructations have ceased, and he says he feels himself a new man. Indeed, his general appearance proclaims him such. To use his expression, "this is a wonderful medicine." He says it is strange so small a dose should work such a change after taking so much medicine and in such large doses.

I have tried the cascara in only a few cases, but with uniform success The above is the most striking of the number, hence I present it. I am greatly pleased with the medicine.

44.

Report from W. W. Morrison, M. D., Rockford, Ill. (Therapeutic Gazette, 1880; p. 153.) Of the merits of this drug as a remedy in constipation, it would be superfluous for me to speak. No article of the materia medica has a place more fixed in therapeutics than this. I apprehend, however, that it is not generally supposed to be curative of the opposite condition to constipation—diarrhœa. The following case will show that it does relieve diarrhœa and that it is not impossible that it may yet come to be regarded as a valuable remedy against this condition. My own daughter was taken last October with a severe attack of cholera morbus with dysenteric symptoms. After the acuteness of the attack subsided, she was left with a diarrhœa which, in spite of the usual remedies, continued until February. At this time I received a sample of cascara sagrada from my friend Dr. R., of Knoxville, who advised me to try it in an obstinate case of constipation I had on hand. The doctor's views of the modus operandi of the drug induced me to give it a trial on my daughter. If it cures constipation by imparting tone to the muscular fibre of the intestine, might it not also relieve a diarrhœa which was evidently

due to depreciated tonicity of the mucous and muscular tissues of the bowels? I accordingly gave ten drops of the fluid extract, which I repeated each night for three successive nights. The relief was remarkable for its promptness and its completeness. The discharges, which before had been mixed with a white mucus and extremely offensive, at once changed to their natural color and soon to their natural consistence.

I report this single case to direct attention to what may prove a very valuable property of this drug. My observation will certainly lead me to have recourse to cascara in the next case of this nature I may be called upon to treat.

45.

Report from H. M. Field, M. D., Newton, Mass. (Therapeutic Gazette, 1880; p. 155.) My attention having some time since been called to this drug as a gentle peristaltic stimulant and regulator of the bowels, I was induced to accord it a trial. I wanted a remedy which would act in this way, but had never succeeded in finding it. My trial of cascara sagrada has been attended with such marked success as to draw from me this expression of my high opinion of it. Its success has been especially marked in certain obstinate and chronic cases of constipation for which I had despaired of finding such a means of relief as was desired.

If my experience with the remedy continues as it has up to the present, I shall take great satisfaction in recommending it to my medical class.

46.

Report of J. E. Clark, M. D., Professor of Physics and Medical Chemistry in the Michigan College of Medicine, in a paper read before the Wayne County Medical Society (*Therapeutic Gazette*, 1880, p. 186.) The right of cascara sagrada to a prominent position in the front rank of our advancing therapeutical science, as a remedy *par excellence* for chronic constipation no longer admits of argument.

It is rare indeed that a remedy even under the most favorable circumstances meets with a tithe of the success accorded this from its introduction, and taking into consideration the malicious persecution and misrepresentations of which it has been the subject, one is forced to the conclusion that its inherent virtues and the success attending its administration by practitioners have alone preserved it from that bourne from whence so many so-called specifics ne'er return—oblivion.

Two or three years have sufficed to bring it into general use and to acquire for it a name as far in advance of the old "peristaltic persuaders" as our present therapeutics excel those of a century ago. The almost invariable success that followed its use in the treatment of many of the functional affections of the stomach and intestines, especially in chronic constipation and its concomitant train of symptoms, induces me to speak of it thus highly, for I feel confident that a fair and impartial trial of its virtues will remove these diseases from the class considered *opprobria medicorum* by the profession.

I have used the preparation since its introduction and in very few instances has the effect produced failed to be beneficial to the patient. In many cases idiosyncrasies have been met with where combinations with nux vomica, ergot, belladonna, etc., have assisted in attaining the desired end; but as a rule the following simple prescription has answered all purposes:

℞ Ext. Rhamni Purshianæ, fl. ʒ ss.
Syrupi et aquæ ää ad ʒ ij.

M. Sig.—Teaspoonful three times a day.

In many cases I have found less than the above quite as beneficial as the larger dose, in fact, I have found ten or fifteen drops administered three times a day, bringing the system gradually under the influence of the medicine, preferable to producing a marked impression by means of a drachm or more at the outset. I have found it excellent as an anti-periodic and hepatic in ordinary chill fever and have met with flattering success in the treatment of hæmorrhoids caused by portal congestion, its action as a hepatic freeing the ramifications of the venæ portæ and lessening the hepatic engorgement.

Have also found it serviceable in cases of chronic gastric catarrh. In cases of acute or chronic dyspepsia with failure of the digestive and assimilative forces from nervous enervation, its action upon the ganglionic system stimulating the secretions of the liver, bowels, and entire alimentary canal, renders it a valuable addition to our list of tonics.

I have selected the following from many cases as exhibiting varied functional disorders, especially indicating the rhamnus purshiana line of treatment.

Case 1. S. B., aet. 42, chief engineer large manufacturing establishment, corpulent, habits sedentary. Was called to see patient January, 1879. For twenty years had been subject to exceedingly severe attacks of cephalalgic paroxysms once to twice per month, had been treated by many physicians, but had never succeeded in obtaining more than temporary relief. He informed me he only looked for relief, as the hope of being permanently cured he had resigned, considering himself the victim of an irremediable malady.

His liability to lose several days at a time from this cause, made a factor in all his business engagements, frequently causing heavy pecuniary loss. Examination during paroxysms gave temp. normal, surface of body cool, abnormal sensitiveness to light and sound, anorexia and nausea, with a history of inveterate constipation of the bowels. The sclerotic and orbital region showed a well marked icteric tint.

Placed patient upon rhamnus purshiana, and succeeded in producing one evacuation per day. No paroxysms in February, March, April, and May. A slight attack in June, attributed by patient to failure to take the medicine.

Oct. 1. No attack since June, taking one-half the amount required last January.

Nov. 23. Called for medicine. Had taken none for five weeks; feared an attack.

Jan. 1, 1880. No violent attack since first dose of medicine. Patient satisfied he has found a specific, and a goodly sized Christmas box delivered at my office marks his appreciation.

C. D., a hysterico-hypochondriacal female, with history of uterine trouble, and gynæcological investigations. Said she believed if she could procure a free evacuation from the bowels once per day, the exciting cause or most of her affections would be removed.

May 3. Acting upon her suggestion to an evacuation each day, I put her upon a mixture of

℞ Ext. rhamni pursh. fl., ʒ j.
Ext. belladonnæ fl., ʒ j.
Tr. nucis vomicæ, ʒ ij.
Syrupi et aquæ, ää ad. ʒ jv.

Sig.—Teaspoonful thrice daily.

At first medicine produced slight catharsis. Reduced dose to teaspoonful twice a day, and on June 20 to one teaspoonful each morning at 10 A. M., she claiming this sufficient to produce the necessary evacuation.

Dec. 10. She informs me that she has not been better in ten years. Taking one teaspoonful per day.

Clinic Michigan College of Medicine:—E. F., female, æt. 21, complained of hæmorrhoids dating from the period of gestation some 18 months since. Had been treated for more than a year with slight temporary relief.

A well marked case of portal congestion with history of dyspepsia and chronic constipation. I

directed 15 drops of the extract to be taken three times per day for one month, at the end of which time she reported entirely cured.

Have administered it to a number of cases at my clinic during the past three months, and the record shows that in no case where patients have reported have the effects failed to be beneficial.

46*.

Report from Dr. Med. Karl V. Ruck, Norwalk, Ohio. (Therapeutic Gazette, 1880; p. 259.) Mrs. B., æt. 62 Was called to see her March 6th. Found patient much emaciated and low-spirited, having been in the hands of several practitioners, without obtaining any benefit. Her last physician, a homœopath, had diagnosed inflammation of stomach, gave "little pills," and ordered diet of "cabbage and boiled onions" to the exclusion of almost everything else. In getting the history of the case, I found that it began with obstinate constipation, about six months ago. The constipation was a more or less prominent symptom throughout her illness. I found great flatulent distention of stomach, the greater curvature reaching to within 2½ inches of the pubis. There was considerable tenderness of abdomen, and fæcal accumulation in ascending colon. The tongue was heavily coated, breath foul, temp. normal, pulse 76, weak and compressible. She complained much of heat and burning in her throat, and eructations of gas from her stomach, and often vomited her food (cabbage and onions). Besides she had much palpitation of the heart and fullness in chest, and, as she said, "ball in her throat the size of a goose egg." Her bowels had not moved in eleven days; she was very apprehensive, declaring she was going to die anyway.

Looking the case over very carefully, I concluded that the whole difficulty depended upon the condition of the bowels, and giving a favorable prognosis, ordered large injections and a tablespoonful of the following every four hours until the bowels should move:

℞ Sodii bicarb., 4.00.
Pulv. rhei., 16.00.
Spts. menthæ pip., 8.00.
Syr. rhei. arom., q. s. ad., 125.00.

M. Ft. sol.

March 7th and 8th the bowels remained confined.

March 9th ordered:

℞ Hydr. c. cretæ 0.75.
Pulv. podophyllin 0.05.

M. One dose, also an injection of an infusion of aloes.

Next night she had one stool and felt better. I now ordered the rhubarb mixture to be continued and the following pill at bed time:

℞ Pulv. aloes soc. 0.10.
Extr. nucis vom. 0.03.
Extr. bellad. 0.01.
Pulv. ipecac.
Pulv. saponis ää 0.02.

M. One pill.

In spite of this, and occasional change to mercurials, saline and veget. cathartics, in full doses as well as copious injections and the best regulated diet, her bowels remained confined for 7 days and moved only upon administration of:

℞ Hydr. c. cretæ 1.25.
Pulv. podoph. 0.20.

M. One dose.

Smaller doses given before had no effect. Continued same for two days in half doses, with no effect. On March 19th gave again hydr. c. cretæ 1.30, pulv. podoph. 0.25, with no effect. March 20th ordered castor oil emulsion, which she vomited. It would occupy too much space to give the details of the treatment for the next nine or ten days, during which she had no passage at all. I resolved now to again try cascara sagrada, though I had been disappointed in its use in several cases; I must, however, in justice, remark that the preparation used was one made by a New York house. I obtained a sample vial of Parke, Davis & Co., Detroit, and, April 1st, discontinuing everything else except 5 grs. of lactated pepsin three times a day with milk; I ordered:

℞ Ext. rham. pursh. fl. (P., D. & Co.'s.
Syr rhei arom. ää 60.00.

M. Dose, 5 grammes after each meal and 10 grammes at bed time.

April 2d, she had two free and easy passages from her bowels and said she relished her food a little more. Continued treatment. April 3d, again two passages, other symptoms improving. Continued treatment. April 4th, had four passages, still improving otherwise; decreased the dose after this, so that the bowels moved one or twice in 24 hours until April 20th, when she took only half a teaspoonful of the mixture at bed time, and was discharged cured, having had no distress of any kind since the first few days after beginning with cascara sagrada. She gained over twenty pounds of flesh in a short time.

I have records of several other cases of a similar nature in which cascara sagrada succeeded equally well.

47.

Report from A. E. Remington, Bulls, Rangitekei, New Zealand. (Therapeutic Gazette, 1880, p. 270.) In February of this year I received a small sample of fluid extracts of several new remedies.

I am not a physician, and consequently cannot be expected to describe symptoms as he would, but in this country the public frequently consult their chemist, and describe to him their symptoms, and there is no getting out of treating them, and it is simply as a chemist that I have observed the effects of the articles administered. Cascara sagrada overcame one case of constipation in a female, and it may be stated as a thorough test of the value of the remedy, that for four years her condition had been becoming more and more aggravated, notwithstanding that she was always taking pills. When I commenced the administration of the cascara, she had had no evacuation of the bowels for six days, and had a severe headache. I gave her a mixture of:

℞ Ext. rhamni purshianæ fluidi, ʒ j.
Syrup aurantii corticis,
Aquæ, ää q. s. ad. ʒ iv.

Sig. Two teaspoonfuls for the first dose, then one teaspoonful four times a day. In a week she returned, and reported that she felt ever so much better, bowels acting once a day, and asked should she continue medicine. I ordered her to take a teaspoonful at bedtime only, and this she did for another three weeks, and now reports herself as being quite a new woman; she has no return of the old trouble, although three months have passed since last dose of medicine. I do not attempt to explain how the medicine achieves its effect; it does it, and that is sufficient for me.

48.

Report of S. M. Curl, M. D., Fellow of the Linnean Society, England, Rangitikei, New Zealand (*Therapeutic Gazette*, 1880, P. 313.) There being already several species of the genus Rhamnus used in medical practice, viz., Rhamnus catharticus and the Rhamnus frangula and others, all acting as purgatives of greater or less activity, it might be expected that this member of the family would possess cathartic properties, and experience has now shown that it does so in an eminent degree; and if anything were wanting to prove the usefulness of a knowledge of systematic botany to medical men, it would be the fact that is here exhibited of a plant being used empirically and by illiterate

persons and proved to be useful, which, when brought to the knowledge of properly educated men, is by them at once accepted and tried, because they on learning that it belongs to a family of plants botanically known, are prepared to believe it may possess such virtues as those ascribed to it, and trying it, soon discern its peculiar merits

We find by our laboratory experiments that the preparations of Rhamnus contain Rhamnin, a pale yellow cauliflower shaped crystalline substance, Rhamnotannic acid, in green-yellow amorphous pieces of a bitter and acrid taste, fusible and easily broken, readily soluble in alcohol and in ether, and an uncrystallizable substance, Rhamnus cathartine, a friable yellow powder, giving out a peculiar odor on being rubbed, has an unpleasant taste, bitter and acrid, fuses by heat to a yellow oily-like fluid, dissolves readily in water, not in ether. Also Rhamnoxanthine, a citron-yellow crystalline mass of silky lustre without taste or smell, sublimates in golden yellow needles, is not soluble in water but slightly in alcohol and ether. There are several other interesting bodies, which I have not had time to examine, in the preparation of the Rhamnus. But we know enough to see that it is likely to be very useful in an atonic state of the bowels leading to habitual constipation, as these proximate elements contained in it act upon the nerve centres and set up increased peristaltic action of the intestinal tube, as proved in the physiological laboratory, and when prescribed in appropriate cases, I have found it act very beneficially on patients suffering from all those states of ill-health brought about by insufficient action of the howels.

49.

Report from Geo. W. Orr, M. D., Central Mine, Kewenaw County, Michigan, Therapeutic Gazette, 1881, p. 15. Mrs. K. aet, 35. This patient called at my office in Nov. 1879. She stated she believed herself to be consumptive. An examination of chest, however, did not confirm her suspicion; indeed her lungs were in perfect condition, of which fact I fully convinced her. I soon traced her trouble to her bowels, which she stated went frequently eight and nine days without movement. Her weight was 116 pounds. I placed her on fluid extract cascara sagrada, at first giving a teaspoonful before bedtime. The result was marvelous; in two weeks her bowels became regular, and a reduction of the dose was necessary. One year has passed, and Mrs. R. weighs 156 pounds, her bowels are regular and her despondency has disappeared.

Mrs. O. S., aet. 74. This patient tells me her bowels move on an average once a week, but frequently she goes nine days, and this condition of things has covered a space of more than ten years back. She, too, was put upon cascara sagrada with quite as satisfactory results.

50

Report from Jno. E. Brackett, M. D., Professor Materia Medica, Howard University, Washington, D. C. (Therapeutic Gazette, Feb., 1881; p. 49) It is questionable whether in the life of the general practitioner, a more troublesome and annoying complaint is met with than chronic constipation, producing, as it does, a train of evils to which the sufferer either wholly succumbs, or seeks such temporary relief as may be offered by the regular physician, the strolling charlatan, or the innumerable pills and nostrums advertised so freely in the various newspapers throughout the country. Is it not with deep chagrin that the man who writes M. D. after his name, acknowledges all his laudable efforts at relieving, with any degree of permanence, this *bete noir* of medical practice, are virtually failures? Such, at least, had been my experience, and I am free to confess it, until the remedy, the name of which heads this article, appeared. Since that time, however, I have felt very little, if any, uneasiness in taking charge of such cases, as the results have always been satisfactory when my directions were carried out with any degree of accuracy. Still, in spite of the invariable success which followed the administration of this new drug, I hesitated to give my confidence wholly into its keeping until a test of two years or more, among a varying class of cases, has proven beyond a shadow of doubt its capabilities. I therefore take great pleasure in adding the weight of my experience to the already over-heaped pile of testimonials in favor of this new and invaluable addition to our materia medica.

I have used the drug now continuously in my practice for more than two years, to the exclusion of almost all other remedies belonging to its class. and I have yet to record a single failure in obtaining a cure sooner or later. I have used it alone and in combination with other remedies, as, for instance, extract of malt, berberis aquifolium, compound tincture of gentian, elixir of calisaya, compound tincture cinchona, simple syrup, syrup of tolu, and glycerine. The berberis aquifolium was added in cases associated with rheumatic pains of the joints, scrofulous swellings or ulcers, and in simple debility; the addition of the bitter tonics were in all cases to invigorate digestion and increase the appetite in patients requiring such treatment, and how often one finds loss of appetite, impaired digestion, mal assimilation, with consequent debility, both general and local, associated with chronic constipation; in cases of that kind I always have found the addition of gentian, calisaya or cinchona excellent adjuvants. The extract of malt is added when a combined nutrient and digestive stimulant is desired—then, too, the large proportion of diastase renders preparations of malt most effective in those forms of disease originating in imperfect digestion of the starchy elements of food, a condition frequently found among a people subsisting almost wholly on a diet of vegetables

It is not necessary that I enumerate cases cured by cascara sagrada, with which I am cognizant; their name is, I might almost say, legion; and to select from this number any cases worthy of special mention would be quite as fruitless, for they are all of equal interest to me. I can only say, in conclusion, that if there be any of your readers who have not given this new remedy a fair trial, I should advise them to do so at once, feeling assured that the results will exceed their most sanguine expectations.

51.

Report from H. C. Shipley, M. D., Forks of Capon P. O., W. Va., (Therapeutic Gazette, 1881, p. 49. The first case I have to report is that of a lady æt. 67. Paralysis of the right arm. Obstinate constipation, and left foot badly scalded, the result of an accident prior to the attack of paralysis. Constipation however, was of long continuance—what might with propriety, be termed chronic. Was called to see her on the 12th of December. Commenced the treatment by giving her cascara sagrada 3 j, tincture nux vomica 10 gtts, to be repeated every three hours during the first twenty-four hours; afterward four times a day. Visited her again on the 14th, and to my astonishment found the constipation entirely overcome. Duplicated the prescription, and repeated the dose three times a day. Visited her again the 16th and continued this course. On my fourth visit, the 19th, found her in a decidedly convalescent condition, and up to this date, fifteen days since, she is entirely well. It is proper to remark that the only dressing used for the foot was 3 ij grindelia robusta to a tumbler full of water, which had to be duplicated twice of three times.

My second case was a lady æt. 17; married. Was confined Nov. 7th. Was attended from that

date up to the 9th of December by a pretended doctor, when I was called to see her. This pretender had pronounced her a case of hysteria, and was using tr. ferri chlor. 10 drops three times a day, with 5 grains of pulv. rhei. at night. I found the patient with tongue heavily loaded with a dark and very tenacious coating. Sordes on the gums, teeth and lips, an exhausting diarrhœa, pulse 120, small and wiry, anxious expression of countenance, features pinched, skin shrivelled and shrunken, extreme tenderness over the region of the womb, excessive soreness of the vulva, extending upward into the vagina—soreness so great that I could not make a satisfactory digital examination, patient also very anæmic. I diagnosed it, as a case of typhoid diarrhœa, with endometritis. Prescribed:

℞ Cascaræ Sagradæ, ʒ ijss.
Beroeris Aquifolii, ʒ ij.
Piscidiæ Erythrinæ, ʒ ij.
Syrup. Simp., ℥ iij.

M. Sig. A teaspoonful every three hours.

Loca. applications to vulva, ʒ ij grindelia robusta to half pint of warm water to be repeated every hour.

Dec. 11th, my second visit, found marked improvement in all the symptoms. Continued the above course except to substitute the rhus aromatica in the same quantity for the cascara and four times a day instead of every three hours.

December 13th. At this visit found her sitting up with tongue and mouth perfectly clean, pulse nearly normal, countenance sprightly and cheerful, pain, tenderness and diarrhœa gone, and her only inquiry was to know what she could eat. On the 15th, through the overwhelming assiduities of her friends she ate pretty freely of "kraut" and pickled pig s feet; result, relapse. Was sent for again on the 16th, when I found her with all the entire list of untoward symptoms. Being determined to give these highly lauded remedies a fair test, I must confess it was with some misgivings that I again resorted to their use, fearing that at this critical juncture, a confirmed relapse as I feared, and of a form of disease that has always been regaded as dangerous, they might fail me. However, I duplicated my first prescription and directed a teaspoonful every three hours, and to my great and agreeable surprise on the 17th I found her all right, at which time I gave her ʒ ij eucalyptus in ℥ jv water, as a tonic.

M. Sig. Teaspoonful four times a day.

Recovery rapid and eminently satisfactory. The result of my experience in the two cases, being so satisfactory I am still testing them in some others, and especially in some old chronic ones, the result of which I will report hereafter if agreeable.

32.

Report from W. R. Alexander, M. D., Appointed Physician and Surgeon to poor of Parkersburg District. Parkersburg, West Va. (Therapeutic Gazette, 1881, p. 84.) Much has been said and written about the wonderful effects and properties of rhamnus purshiana (cascara sagrada), it is true, but as I have had considerable experience in the use of it, getting such very satisfactory results from its administration, I feel that it should be kept prominently before the profession as a great and never-failing remedy for constipation, and those diseases of the system which depend upon a constipated condition of the bowels, lack of secretory action, etc. As to its *modus operandi*, I agree from my experience with it very fully with Dr. Goss, "that it spends a direct effect upon the sympathetic nervous system, especially upon that of the solar plexus, stimulating the nutritive and assimilative functions directly. It powerfully stimulates the digestive process, increases the activity of the secretory organs, especially where the secretions are deficient and perverted; hence perverted or deficient secretion is the special indication for this very great remedy. In constipation depending upon deficient secretion, the fluid extract given in doses of 20 or 30 drops 3 or 4 times a day, will regulate the bowels. It increases the action of the liver without nausea or other inconvenience." In my hands it has particularly proven to be a tonic to the muscular tissue generally, but especially upon that of the stomach and bowels, and at the same time it increases the secretions. In cases of indigestion, where the patient throws up everything taken, Dr. Bundy's formula is most admirable, in which he combines the hydrocyanic acid dilute with the cascara, berberis and malt. There is one case in particular from which I got the most satisfactory, as well as very remarkable results with the cascara. It was a married lady, nearly 50 years of age, who had suffered many years with constipation, inactive liver, dyspepsia, and hemorrhoids. You can imagine this lady suffering from the above maladies. She had consulted many physicians, and pursued many plans of treatment. Never had an operation of her bowels for several years without either using medicines or injections for that purpose. When her husband first consulted me in regard to her, she was under the treatment of one of the most reputable physicians in this city, and as he had exhausted everything in the materia medica upon her, I had to acknowledge I could do nothing for her, and she continued for several months more under the doctor's treatment, until at last despairing of relief from, and being disgusted with all medicines, she determined to try the virtues of some of the popular watering places. Her husband knowing I had some familiarity with a mineral spring, he desired to send his wife to consult me as to the propriety of her trying it. By this time I had, from literature I had received, heard of the cascara, and told him of it, and insisted upon his trying it with his wife before he took her away. Thinking everything had been given her that possessed any efficacy, he at first declined. I read him some of the high ecomiums from different and prominent medical authority, and thus induced him to at least try it. Her condition at this time was as follows: Sallow complexion, general emaciation, broad, flabby tongue, coated with a thick, yellow fur, foul breath, cardialgia, headache, habitual constipation, liver enlarged, with considerable pain on pressure. I ordered two preparations of it from a druggist in this city, who had gotten some for my special use. The first was Dr. Bundy's preparation, which I intended should meet the dyspeptic condition of her system, and is as follows:

℞ Cascara sag. fl. ext. (P., D. & Co.), ℥ j.
Acid hydrocyanici dil., ʒ j.
Malt extract, fl., ℥ ij.
Berberis aquifol. fl. ext., fl, ℥ j.

M. Sig.—Teaspoonful after meals, or oftener, if there is pain or distress with belching of gas or wind from stomach. In addition to above I ordered the second, as follows:

℞ Cascaræ sag., ext. fl. (P., D. & Co.), ℥ ij.
Syr. hypophosphit. co., ad ℥ jv.

M. Sig.—Teaspoonful at night when the bowels fail to move during preceding day.

I heard nothing more from this patient for nearly a month, when she called in person looking like another being altogether. She said the medicine had acted like a charm; under its influence her bowels moved every day, her appetite was good, her digestion much improved, that the medicine, unlike other similar preparations, caused no pain to hemorrhoidal tumors, that it left the bowels lax, as she had only to take it once or twice a week. She had given up her trip to the springs. She left the office with a prescription for four times the quantity of formula No. 2, given her at her earnest request, as she said she wanted to keep plenty of it in the house in case she needed

I consider the above very remarkable, the case a bad one, the remedy a powerful and sure one, as she had tried all else without even relief. I could give you other and very interesting cases, but as I have already written to considerable length, I will close by saying I have had no failures from cascara ssgrada where the article was a genuine one. I would, however, warn the profession against spurious and cheap preparations. There is a house in the west, and one in the east, that make and sell cascara sagrada much cheaper than Parke, Davis & Co., but it has failed me in its action, having no comparison whatever to Parke, Davis & Co's preparation. I have warned my druggist against any cheap preparation of it, telling him I would rather pay higher prices and get the best. I repeat, that from my experience with it, I cannot believe that a genuine article of it will ever ever fail to relieve constipation or lack of glandular secretion, laxity or want of tone in muscular tissue, and in inflammatory conditions of mucous surfaces.

53.

Report from Willard H. Morse, M. D., Hinsdale, N. H., (Therapeutic Gazette, 1881, p. 88.) I can sincerely say that I have never met with a safer remedy than this for constipation. I have adopted it in my practice, and think as much of it as I do of any officinal drug. It could not be bettered. I admit that when I first took it up there were doubts in my mind as to its utility, but I have submitted it to the best tests, and it stands proven good. It is recommended in constipation where the secretions are deficient, but I employ it whenever I have a case of constipation to deal with. One case among many in which I used it was as follows. A., aet. 20, housekeeper. Had been habitually constipated for several years. Gave cascara, a teaspoonful every morning on an empty stomach. Result, after taking six ounces, re-establishment of perfect action of the bowels. No return of the constipation.

54.

Report from L. V. P. Boyle, M. D., Washington, Iowa. (Therapeutic Gazette, 1881; p. 97.) My experience with cascara sagrada has been peculiar, but perhaps my mention of it may lead to its notice by others. I have found it to work like a charm in patients with light hair, eyes and complexion, but in patients of dark complexion, hair and eyes, it has been found useless. In every case of constipation which I have treated with this remedy since I made this observation, it has succeeded in those of light complexion but has failed in the dark.

55,

Report from A. F. Stimmel, M. D., Chattanooga, Tenn., (Therapeutic Gazette, 1881,) p. 168. Constipation caused by torpid liver.

1. My own brother-in-law, telegraph operator, and therefore through his sedentary life liable to hepatic troubles and constipation, had tried all patent medicines, seltzer aperients, etc., and finally asked me for calomel. I reluctantly gave it to him, but he took as much as twenty grains without being benefitted. I persuaded him to take cascara sagrada, fluid extract, (P., D. & Co.) He took one-half teaspoonful at night, fifteen drops at morning, noon and evening for some four days, and now he says he feels like a new man.

2. Infant of Mr. Ch. B.—Mother came to me complaining that the child did not nurse, nor had had any action of the bowels in the last three days. The child had been wakeful for some nights previous to that time, and the father had brought home some "Winslow's Soothing Syrup," of which the child had taken regular doses. The case was clear to me. 'Winslow's Soothing Syrup" is a vile opium preparation, apt to kill a child, and if our physicians would write the truth in their burial certificates, they should say in many cases, "died from the effects of 'Winslow's Soothing Syrup,' instead of died from congestion of the brain, etc." I saw we needed a decidedly active remedy, and I prepared, analogous to the spiced syrup of rhubarb, a spiced syrup of cascara sagrada, which I directed to be given in ten drop doses twice daily Yesterday the mother came to me and told me that the child was doing remarkably well, the medicine having acted two hours after the first dose, and the child resting well. "But there is some little bit of opium in the mixture you gave me, doctor," she said, "because the baby could not sleep so well if it had not had something like opium."

56.

Report from Ray R. Mitchell, M. D., Millersburg, Ohio, (Therapeutic Gazette, 1881, p. 285.) There has probable been more written about cascara sagrada than any other new remedy introduced within the last decade. Since the drug came into general notice a few years ago it has won a multitude of friends by its mild, pleasant and faithful action. Thousands of persons reclaimed from the miseries of habitual constipation will say that the name carcara sagrada is not a misnomer, for truly it is a bark held sacred by them.

With this encomium as a preface, I beg to intrude a few remarks in a general way with regard to this remedy. But before entering upon the subject. I shall, with due respect to the contributors of this journal and with the permission of the patient editor, offer the following strictures: It has always been a lamentable feature of the Gazette to contain reports of experiments written not only before the investigator had tried a given remedy in a sufficient number of cases to enable him to draw an intelligent, trustworthy conclusion, but before the tests had been carried to an issue in any case. For instance in a hasty, premature report of a case we frequently read at the close, "The patient is still under treatment and is doing well;" or, "There has been marked improvement, and I believe the patient will ultimately recover." What medical science demands are facts, which in most instances, and particularly in therapeutics, cannot be furnished until after a long-continued, patient and painstaking investigation, extending, perhaps over a period of years, and would include in it the material for the fact the accumulated results of many hundreds of carefully tabulated cases.

I am loath to confess it, but it is evidently true that many physicians are not satisfied with the notoriety secured to them by the practice of their profession, but are impelled, by some innate vis a tergo, to rush into print whether they have anything to say or not.

Hoping thereby to gain the confidence of my critical readers, for I know every word is carefully and justly weighed by hundreds of silent men, I will state that I have been prescribing cascara sagrada for two years, and this is the first article I have prepared for publication relative to my experience with the preparation.

From the numerous cases that have come under my observation, I can cite but one in which the remedy failed. It is not claimed for the preparation that it is infallible, but it is an indisputable fact that it is reliable. I shall now mention a few reasons why the drug occasionally fails to cure or relieve, at least the explanations I shall assign will hold good, in the majority of instances where it does not succeed. Not as a champion or defender shall I mention them, as there is no occasion, but

hoping to furnish additional information for the busy practitioner who needs all of the practical suggestions that can be offered, I shall designate a few causes of dissatisfaction:

In the first place, when cascara sagrada is prescribed, it should be aided by all of the collateral measures within reach. A favorite case with many for a trial of the remedy is one of twenty-five years' standing and due to a severely sedentary life. If the prescription is not followed by a complete and permanent recovery after a trial of a very few weeks, the preparation is declared to be of no value. In the name of common sense I ask who could justly demand a cure without a removal of the cause, the administration of adjuvant remedies and the adoption of various obviously necessary remedies?

One physician says that "It (cascara sagrada) seemed to have a cumulative effect, which was very injurious. But when it broke loose it did so with a vengeance." It is evident in this case that the management was very much at fault, and contrary to the course that would have been pursued had our worthy brother been better informed as to the physiological action of the drug. The profession should be thoroughly impressed with the fact that its principal action is that of a tonic to the bowels, and that as such it produces the results observed.

Producing its effects by means of its tonic action, it is evident that preparatory treatment is indicated in most cases, and how frequently is it employed? The most essential measure in this preliminary course is, probably, the administration of a saline cathartic. By this means the bowels will be prepared for the prompt and full action of the remedy.

The doses given are generally too large, and this fact is worthy of emphasis. I am frequently brought in contact with competent medical gentlemen, men who stand high in the profession, and the experience of all coincides with my own, viz: that the best results are obtainable when the fluid extract is given in doses of ten to twenty drops, which course is clearly indicated by the recognized physiological action of the drug.

In many cases where the remedy does not succeed it is preseribed at a time when it cannot best serve the purpose. Observation has shown that it is better to administer the preparation one-half hour before each meal.

One fruitful cause of failure is that imitations of the genuine article are palmed off by designing, conscienceless parties as the true cascara sagrada. It may be asked, "Who is responsible for the introduction of these vile stuffs?" It must be charged in great measure to the heedlesness and carelessness of wholesale druggists. With very many of these the handling of a preparation hinges upon the question of profit rather than upon that of purity and reliability of manufacture. They will claim that they are under no obligations to discriminate in their purchases; that their business is to keep what may be in demand. But is this true? Surely they should bear their share of the responsibility. In justice to their patrons, the people, they can only keep that which is unquestioned and unquestionable. Since they are the first to take the product from the manufacturer, they should be the first to challenge its right to notice and confidence. This, in the majority of instances, they do not do.

Retail druggists, placing confidence in the wholesale dealer, purchase without thought or question as a rule, and supply the physician. It is asserted that it is the doctor's business to see that he procures reliable medicines. That is very true, but how can he recognize the false if he does not have access to the true? The latter for obvious reasons is very frequently withheld from him. The gains are not so great in buying and selling the worthy article.

But I do not wish to defend the practitioners' culpable gullibility. I have known physicians who gave no thought as to the name and character of the manufacturer, or to the reliability of the preparation. But if it had the regulation color it was prescribed unquestioned, and if failure ensued, the same was credited to the violence of the attack or to the downward tendency of the disease. These very men are generally the first to cry down new remedies introduced by reliable manufacturers after they have been recommended by able men in the profession to be preparations of special therapeutic value.

The only remaining cause of failure to which I wish to call special attention is that too much is expected of it, or any other new remedy, by many of the more conservative physicians. The test by which they propose to determine the relative value of a preparation is extreme, and therefore unjust. The article is prescribed in a very few cases, perhaps but three or four, and if it does not give complete satisfaction in every instance, it is condemned to probably unjust retirement. While under trial the remedy is necessarily subjected to the numerous disadvantages surrounding a new arrival and a stranger. It is obliged to compete with the old, well-tried, favorite remedies with which the profession is familiar, and whose properties and peculiarities they understand so thoroughly. They will not admit it, but many practitioners will require the recently introduced preparation to cure where the old favorite has failed. How manifestly absurd are such inconsistencies.

57.

Report from M. A. Latimer, M. D., Denver, Colorado. (Therapeutic Gazette, 1881, p. 300.) In reading the reports of some practitioners on the results obtained by their use of new remedies, I must say that, at least, I often become impatient. Take cascara sagrada for instance. One fellow says "it is useless except for blondes." I would just here add that any remedy becomes useless in direct proportion to the deficiency of brain on the part of the prescriber. It the Juue number of Gazette, Benjamin D. Lay, M. D., and his confrere,—Gage, M. D., are not satisfied with cascara sagrada. Dr. Lay gives us his old "shot-gun" mixture, and appeals to its success through a practice of 37 years. I would infer from his report that he belongs to that class of people who still believe the world to be flat. I have used cascara sagrada almost from the date of its introduction, and will say, so unbounded is my faith in its remedial virtues, that I guarantee to cure with it any case of constipation, or forfeit $100. I care not whether the patient be a blonde or a brunette, old or young, whether he be from the frozen regions of the north, or treads the burning sands of Africa, without regard to age, sex, or previous condition. In any case coming within the legitimate sense of the term, I regard it, in the hands of the intelligent physician, as much a specific for constipation as bread is for hunger, the reports of the fossils of the profession to the contrary notwithstanding.

58.

Report from I. A. Moody, M. D., Junction City, Ohio. (Therapeutic Gazette, 1881, p. 370.) The broad and universal grounds which we, as practitioners of medicine, occupy, stimulates us to push our researches in every direction, in order to extend our area of therapeutical knowledge. In no way can our efforts be spent to better advantage, than in that of trying to enlarge our list of efficient remedies. It is our privilege and duty to use all means whether physical or moral, which the indications of science or the test of experience point out as the most successful in the removal of disease. Of the physical means, we, as regular physicians, have the privilege of selecting anything which the

material world affords. We may use a substance of any form, whether fluid or solid, or from whatever kingdom of nature it may be derived, whether animal, vegetable or mineral.

The article that I have selected, and concerning which I propose to make a few suggestions, is cascara sagrada, the new and valuable remedy for habitual constipation. This remedy, which has been brought prominently before the profession by Parke, Davis & Co., of Detroit, Mich., and its remedial properties tested by several eminent physicians of the west, has not received the attention which its merits deserve. The use to which I think it is especially adapted is as an aperient, or in larger doses, cathartic, not interfering with digestion, in habitual constipation and its resultant evils. The numerous symptoms of abdominal congestion which are frequently produced, or at least maintained, by constipation, and the after effects on individual organs—liver, spleen, stomach, etc. —are found by experience to be not infrequently remarkably improved when the constipation is removed, but entirely cured. For this purpose the cascara sagrada is found to be an invaluable remedy.

In a country like ours, where perhaps three-fourths of all the diseases which we are called upon to treat, are derived, either directly or indirectly, from a morbid condition of the liver, it would be well to pay the strictest attention to every remedial agent which may, in the least, promise to be serviceable in those cases depending upon torpidity of the liver and habitual constipation. I do not expect that the cascara sagrada would meet successfully many of the symptoms growing out of the retention of biliary matter in the circulation; but that it will remove that distressing condition of system caused by habitual constipation, to my mind will scarcely admit of doubt. As to its mode of operation, I do not think it acts directly on the liver, as mercurials, podophyllin and some others do, but by its acting as a healthy stimulus upon the mucous membrane of the duodenum, thus exciting the liver to increased action through the medium of its excretory duct. Other theories might be advanced concerning its mode of action, but the limits of this paper will not permit. Not wishing to occupy too much space in your valuable journal, I will conclude my remarks by reporting a case, in which I used the cascara sagrada with most satisfactory results:

Mrs. C., æt. about 50 years, light complexion, medium height, and a resident of our village, has been for years a constant sufferer, from constipation of the bowels, to such an extent as to be under the necessity of taking physic every few days. The bowels would remain without motion for a whole week, unless a purgative was used, in which instance an unusually large dose was required. All the cathartics were tried that seemed to promise any good in removing the costiveness. She would use one article until the system lost its susceptibility of being acted upon by it, and then she would resort to another with the same result. Thus she continued until she applied to me for treatment, February 10th, at which time I commenced the use of cascara sagrada. On the day she took the first dose, she had had no operation for three days. In the afternoon of that day she took a teaspoonful of fluid extract cascara sagrada, and repeated it in four hours. The last dose was followed in a short time by a free evacuation of the bowels, to the great joy and satisfaction of the patient. She continued to take teaspoonful night and morning, until the most complete regularity of the bowels was established. The pain of stomach and bowels entirely subsided, and her general health is much improved. She is of the opinion that the cas ara sagrada is almost a specific in habitual constipation, and she keeps a supply of it in the house to use as occasion requires. This is one of several cases of the kind, in which I have used this remedy with the most satisfactory results. I will close this paper by merely expressing my ardent wish that members of the profession will not forbear making a test of the merits of this drug.

59.

Report from L. Brown, M. D., Pottsville, Iowa. (Therapeutic Gazette, 1881, p. 380.) I notice in the Gazette for August, a communication from Dr. Latimer, of Denver, in which it appears to the writer that the said Dr. Latimer has most admirably succeeded in writing himself a most uncharitable and narrow-minded individual. The subject is the therapeutic value of "cascara sagrada," and the Dr. has not the slightest patience with any practitioner who will dare to doubt that this remedy is not an absolute and unfailing specific for every conceivable form of constipation. Indeed, he plainly tells us that those who do not thus believe are "fossils," and also that they "must belong to that class who believe the earth to be flat." Then Dr., the profession contains thousands of fossils and disbelievers in the earth's rotundity. The Dr. also tells us that "any remedy becomes useless in direct proportion to the deficiency of brain on the part of the prescriber." But, upon the other hand, may not the same cerebral deficiency have something to do with the Dr.'s unbounded faith in cascara? The undoubted fact in regard to cascara is, that it is a remedy of very considerable value in most cases of constipation. Such is indeed the very general verdict of the profession, but that it is a specific, is not believed by one in fifty of those who have used it, and some at least of these, it is fair to conclude, are as capable of forming correct conclusions as Dr. Latimer. The Dr. even offers to forfeit $100 for a case of constipation that he cannot cure with this remedy. If the Dr. should be able to raise the sum mentioned, we think he would find no difficulty in getting contracts of this kind, so long as his wealth lasted. Dr. Latimer, give us a rest.

60,

Report from Dr. J. A. Hobson, M. D., Flushing, Dec. 23, 1878, New Preparations, February, 1879. Having read your notice in regard to the use of cascara sagrada, I have been trying it in several cases with uniform success. I have seen nothing in regard to its poisonous effects, so will give you a little experience of my own. Mrs. S., age 35, consulted me Desember 13th; complained of occasional attacks of headache. Bowels habitually costive, digestion imperfect; is nursing, child cries nearly all the time. I prescribed the medicine in half drachm doses every six hours. She had taken near two drachms, she being, as she expressed it, "hard to physic." I found her pulse 135, respiration less than normal, strong tendency to sleep, pulse very feeble, not quite regular, pupils normal, complained of great numbness in limbs, sick at stomich, some attempts at vomiting, skin cool with hot flashes, temperature normal, I prescribed sp. ammonia, 3 j every hour largely diluted, sinapism to stomach. She slept well after two a. m,, was all right in the morning; no headache, bowels moved freely in six hours after taking medicine. I know nothing of the physiological action of the cascara, but this case looked like one of slight poisoning by veratrum viride or aconite. If you possess accurate knowledge on this point, I would like to hear from you, as I think it an invaluable remedy for that bane of our art, habitual constipation.

[We have never had any reports tending to convey the idea that it contained anything poisonous. It may contain some alkaloid, which in some cases would act identically with it. We have reason to suppose that preparations are on the market compounded of buckthorn bark and strychnia, or other alkaloids, and think there may have been some such sophisticated. Be kind enough to state by return mail whose preparation you have been using.—Ed.]

Reports on Cascara Cordial.

1.

Report from Thos. J. Wheeden, M, D., 53 Sands street, Brooklyn, N. Y., (Therapeutic Gazette, 1880, p. 195.) I have tested cascara cordial in my own family, in a case of obstinate habitual constipation which had resisted all other remedies. It gives me great pleasure to be able to state that it has met all the indications in the most satisfactory and agreeable manner. In my career as a student and physician, a matter of twenty-seven years, I have never seen anything to equal it. Indeed the satisfaction is so great that were it possible to use more forcible language I should certainly do it. I shall take pleasure in speaking of it to my professional brethren.

2.

Report from R. C. Kinnaman, M. D., Ashland, Ohio, (Therapeutic Gazette, 1880, p. 226.) A sample of this elegant elixir, which I have been submitting to a test, has produced very excellent results. A gentleman who has been one of my patrons for a number of years, has given me a considerable amount of trouble because of the chronic constipation with which he has been afflicted. The whole list of aperients, cathartics, and intestinal tonics had been tried in vain as far as regards permanent benefit. I placed him on cascara cordial, but the very pleassnt taste of the mixture made it very difficult for me to induce him to persevere in its use. His was an aggravated case, and he thought that relief could only come through something "powerful," that is, I suppose, something which by its taste and smell suggested "power." The dose was gradually increased until gentle laxation of the bowels was secured. It was then continued at this dose until the evacuation became regularly diurnal, after which it was discontinued. No return to the cordial has thus far been necessary.

3.

Report from J. Harvey Lyon, M. D., Mason, Michigan. (Therapeutic Gazette, 1880, p. 331.) I received a sample of this elegant preparation some time since, with the request that I subject it to a trial.

A few evenings afterward a gentleman consulted me for chronic constipation. He had tried various remedies and combinations without satisfactory results. I handed him the sample of cascara cordial left with me, with, I confess, very little faith in the value of the mild and pleasant mixture.

Two weeks after, the patient called and assured me that he had followed my instructions for a few days—a teaspoontul before each meal and at bedtime—and had secured copious defecations without the griping and flatulency attendant on the use of the laxative or cathartic pills to which he had been accustomed; that he has had full and easy evacuation since stopping the medicine, and has had more relief from the little phial than he ever secured from the abundance of medicine that had cost him many dollars.

I have tried the cordial on myself without apparent effect, though there was no particular indication for its use in my case.

CASCARA CORDIAL.

PUT UP IN CASES CONTAINING ONE DOZEN FLASKS EACH

Cascara Cordial is an elixir of the bark of the Rhamnus Purshiana (Cascara Sagrada), a tree indigenous to Northern California and Oregon. Cascara Sagrada had long been known to the Indians and Spanish residents of the Pacific coast, prior to its introduction to the medical profession, and was popularly held as a remedy of high repute in the treatment of habitual constipation and stomachic debility. Although the tree is found in other sections careful examinations and trials of samples selected from different latitudes show a variability in active properties in the different specimens. Rhamnus Purshiana is, however, not peculiar in this regard. The same fact (variability of active principles with variability of climate and soil) has familiar illustrations in the case of opium, hemp, stramonium, digitalis and other drugs. Although attaining equal size and luxuriance of foliage in some sections, they may yet be almost or entirely destitute of their characteristic properties. Native opium or hemp, for instance, are comparatively inert, notwithstanding the tact that the plant may vie with that of Asia in size and vigor of growth.

This peculiarity of plant growth has a very particular bearing, and in the case of few other plants is it more important to have a reference thereto than in that of Rhamnus Purshiana. The neglect thereof has given rise to much discrepency in the testimony regarding the medicinal virtues of the tree. Varieties gathered in some sections, although presenting the physical appearances of the active bark, are practically inert, and through either ignorance or a disregard of this peculiarity, the market has been largely supplied with the latter variety. Northern California and Oregon as far as ascertained are the only sections, of this country at least, which furnish the conditions necessary to the development of the medicinal properties of Rhamnus Purshiana.

Another circumstance affecting the quality of the bark is the season at which it is gathered. Experience has shown this to be a very important fact to be borne in mind.

It is scarcely necessary for us to recount the history of the introduction of Rhamnus Purshiana to the medical profession. It will be remembered that our house was the first to give it this introduction, and that rival manufacturers, ignorant of the peculiarities of the tree above enumerated, gathered the bark irrespective of the section of its growth. The consequent failure to secure such results from their preparations as marked ours, instigated the charge that our preparation was a compound to which we had arbitrarily given the name "Cascara Sagrada." The charge, however, although it temporarily served its purpose, viz., the casting of a suspicion on the integrity of our house, was soon shown to be both baseless and malicious, and the Rhamnus Purshiana of our preparation became established as an agent possessed of properties hitherto unequaled in any other drug.

The intimacy of our identification with Rhamnus Purshiana has made it actually necessary that our preparation of it should absolutely conform to the recognized tests. The properties of the drug as we have advertised them to the profession are predicated on the employment of the true variety. In order to secure this variety from which the preparations to which we attach our name are made, it is necessary to make the drug (having the peculiarities we have indicated) a special object of study. This we have done, and the bark is gathered under our special supervision, and each year's crop submitted to a careful chemical analysis to determine its percentage of active principles.

Disappointments in the results of the administration of Cascara Sagrada is due either to the employment of inferior or spurious varieties, or to the improper use of the true drug and the non-observance of proper dietetic and hygienic rules. Constipation is essentially a symptom of a functional disease of the intestines, this disease consisting usually of a diminished tonicity of the muscular coats, resulting directly in the impairment of the normal vermicular contraction. As is the case with other diseases it is the result of a cause, and in its treatment, as in the treatment of other diseases, that cause must first be removed. This cause is very generally due to indiscretion in diet, undue quantity andi mproper quality of food, irregularity in the habit of evacuation, and deficiency of systematic exercise. To secure the benefits of cascara these must be corrected.

Cascara acts curatively in constipation by imparting tone to the muscular coats of the intestine, and is most effective to that end when administered in small doses. In large doses it acts as a cathartic, and thus like all other cathartics given in constipation, it defeats the very end for which it is given, by weakening the bowels by its violent action. By insisting on a faithful adherence to the rules prescribed on each bottle of our preparations of this remedy, in connection with proper diet, of fruit and vegetables, abstinence from alcoholic liquors, which unfavorably influence the liver, regular habits of exercise and the observance of regularity in the time of seeking an evacuation, the physician will find this remedy entirely satisfactory.

Our object in the preparation of the Cascara Cordial is to relieve the prescriber of the difficulty of ordering such a combination with the drug as will relieve it of its objectionable taste. This preparation is essentially an elixir, but it will be found to be so pleasantly combined that with solvents, aromatics and carminatives as to entitle it to be styled a cordial. The presence of berberis aquifolium in the mixture imparts to it decided alterative properties, thus making it a scientific substitute for the patented sarsaparilla compounds and other nostrum "blood purifiers" in the market. In chronic non-inflammatory skin affections, which are usually associated with defective hepatic and intestinal secretion, its success has been very pronounced, and in other dyscrasiæ it will seldom be found necessary to add the iodides.

The results of very extended trial given this preparation by the profession since our introduction of it, warrant us in strongly recommending it to those physicians who are as yet unfamiliar with its properties. To any who may desire the recorded experience of the medical gentlemen who have employed it, we will be pleased to furnish on application, a pamphlet compiled from such reports as have appeared in the various medical journals.

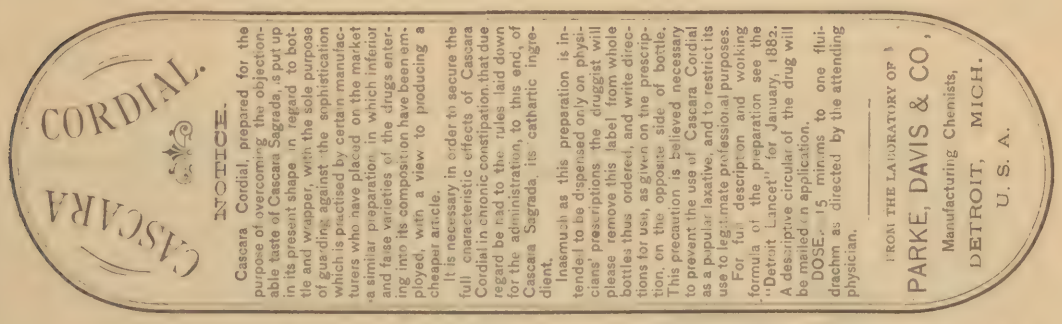
PARKE, DAVIS & CO., Manufacturing Chemists,

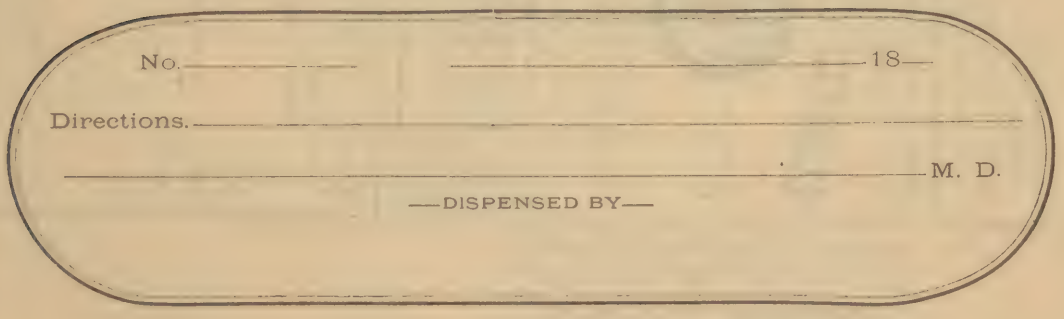
DETROIT, MICHIGAN.

CASCARA CORDIAL.

The attention of the medical profession is called to the fact that this preparation is not intended for sale to the public in any form. In the introduction of this remedy we have worked with the intent of offering to physicians a pleasant and palatable preparation of Cascara Sagrada and Berberis Aquifolium, which would answer the indications for a combination of these remedies of a probably superior character, than would be supplied extemporaneously on prescription. The peculiar tendency of preparations of Cascara Sagrada toward the development, after manufacture, of an exceedingly bitter principle has rendered it difficult to manufacture a liquid preparation which would remain permanently palatable. After several years' experiment we think we have reached the result required, and now place before the medical profession Cascara Cordial in its improved form, as a most elegant and permanent combination for the administration of the remedies above named. It is put up in its present form for the purpose of assuring both the medical profession and ourselves, that there shall be no substitution therefor of inferior preparations. If sold indiscriminately in bulk there would be no positive assurance to the medical profession that our brand of this preparation would be dispensed on prescription, as our experience has shown a tendency on the part of pharmaceutical manufacturers to market inferior substitutes of many of the new remedies introduced by us. This had been shown particularly in the case of fluid extracts, Cascara Sagrada, Berberis Aquifolium, Eucalyptus Globulus, Coto Bark, and other new remedies, and thus, physicians, led to expect certain definite results from the use of these remedies, are frequently disappointed in their expectations, and from no fault of ours. It will be borne in mind, however, that while we have endeavored to identify the preparation with our own source of manufacture, by means of the peculiar form in which it is bottled, we have no trade-mark, patent or copyright on the preparation. There is nothing in our action to prevent any manufacturing house or retail druggist from placing upon the market a similar preparation, in such form as he may select as peculiar or suited to himself.

Cascara Cordial, then, is issued in its present form by us, simply as a matter of protection to the medical profession in cases where they desire to prescribe and obtain our preparation.





In order to obviate the tendency of sale to the public, we have attached labels to each bottle as per fac simile given above. It is requested in print, also attached to each bottle, that the druggist shall remove the descriptive label of the preparation and issue it to the patient with simply the prescription blank attached and bearing the prescription number. In adopting these precautions, in the interests of the medical profession, and with due regard to our ethical relations to the practitioners of medicine, as scientific pharmacists, we ask for their patronage.

Respectfully,

PARKE, DAVIS & CO.

DETROIT, MICH., Oct. 20th, 1882.

FILLED CAPSULES.

In this connection we call the attention of the medical profession to the abuses now existing with regard to the sale of filled capsules for the treatment of specific diseases of the genital organs and other affections, as illustrating the tendency of unscientific pharmacy. Gelatine capsules filled with balsam copaiva, cubebs, sandalwood and other medicinal ingredients, have long been in use by the medical profession, and by the public, for the treatment of the diseases above indicated. Manufacturers have gradually catered to the increased consumption of these articles by the public without the intermediation of the medical profession, by means of supplying all necessary information with regard to administration and treatment in the form of circulars accompanying each box. These circulars cover the history of these diseases, from time immemorial to the present date, with exaggerated symptoms and prognosis and with advice as to the proper use of remedies. When the patient has purchased one box of these capsules he finds, accompanying it, all necessary medical advice, and feels little necessity of approaching the medical practitioner for advice, until by the indiscriminate use of these remedies his digestive or urinary organs are completely deranged. It is a fact also that in certain cases manufacturers, noticing that the principal consumption of their products was by the public, no longer gave that careful attention to the selection of medicinal ingredients which would be deemed necessary where the article was passing under the critical observation of the medical profession, until at the present day it may be assumed that the quality of the medicinal ingredients of many of the capsules sold is of such grade as to call for the condemnation of the profession.

We solicit the attention of the medical profession to a line of filled gelatine capsules which we are now issuing, and which, so far as physical qualifications, beauty, elasticity and solubility are concerned, are unexcelled in the world. As to the medical ingredients, we claim that we use and place therein drugs which are of the very best quality obtainable and absolutely free from adulteration. In offering these articles to the medical profession, as an agreeable and effective method of administering nauseous balsams and other drugs, we take this opportunity to assure them that we shall properly protect their interests in their relations to the public, by avoiding the use of circulars of any form by which information can be conveyed to patients as to their use of the remedies. We attach hereto *fac similes* of labels in use by us for the marketing of our capsules. The wrapper, for the sake of convenience, bears the name of the combination and its number upon our list. The box carries no circular other than a list of our various preparations, without reference to their use in the treatment of diseases. When a prescription is received by the druggist for a box of these capsules, he is requested to remove the outside wrapper and issue the box to the patient, bearing simply the label below given in *fac simile* of, and the number of the prescription, with the general directions of the physician. We trust that our medical friends will see herein an opportunity afforded them to encourage an effort on the part of legitimate pharmacy to protect them in their professional rights, against the action of proprietary medicine men who seek to reach their patients by public advertising.

(OUTSIDE LABEL.)

EACH CAPSULE CONTAINS:
Phosphorated Oil, 1-50 gr.
1-50 gr. Phosphorus in 10 minims of Oil.

NOTICE: PLEASE KEEP THIS BOX IN AS COOL A PLACE AS POSSIBLE, PERFECTLY DRY AND, DURING SUMMER,

1 Doz. SOLUBLE ELASTIC CAPSULES.

FRENCH GELATINE.

MEDICAMENTA VERA

PREPARED FROM THE FINEST

AT THE LABORATORY OF
PARKE, DAVIS & CO.
DETROIT, MICH., U. S. A.

The medicinal ingredients of these Capsules are of the finest quality obtainable at the original sources of supply. We guarantee the presence of the quantity stated upon the labels.

(LABEL ON BOX.)

PARKE, DAVIS & CO.'S
FILLED
SOLUBLE ELASTIC
CAPSULES.
188

℞ No._____

For _____

Directions. _____

_____ M. D.

DISPENSED BY _____

1 DOZ. CAPSULES, NO. 53.
Phosphorated Oil, 1-50 gr.

☞ To those interested, who will make application to us, we will send a file of literature which will definitely establish the fact, by clippings made from public newspapers, that the ordinary gelatine capsules upon the market are advertised directly to the public as specifics in affections of the genital organs.

☞ A full list of our filled capsules, containing formulæ and price, will be sent to any physician free of expense, on application.

Respectfully,
PARKE, DAVIS & CO.

DETROIT, MICH., Oct. 20th, 1882.

Working Bulletin

FOR THE SCIENTIFIC INVESTIGATION OF

Frankenia Grandifolia.

(YERBA REUMA.)

A Plan to promote Progress in the Science of Pharmacology

This working bulletin, accompanied by the drug to be investigated, or a preparation of the same, or both, as the circumstances require, is distributed gratuitously to the Colleges, Universities and other institutions engaged in scientific work, and to the government hospitals, and public hospitals and dispensaries, and to the medical profession at large, to obtain the results of the drug in treating the sick.

The object is to promote original investigation in the science of drugs. This we propose to do by furnishing gratuitously to those engaged in original research, material for investigation, and by publishing the results of the same as a donation to scientific literature. It is apparent that the only return which we can receive for this work is the increased demand for the valuable drugs which we are introducing to science, for we guarantee to publish full reports, favorable or otherwise.

Articles in relation to the drug, under the following heads embraced by the pharmacology, are requested for the THERAPEUTIC GAZETTE, the organ which represents this new system of work. These heads form the classification of this bulletin. In regard to each drug investigated we solicit reports for publication upon the subjects of scientific name; synonyms; definition; natural order; botanical origin; history; commerce; production cultivation; description; microscopical structure; chemical composition; uses (in medicine); adulterations and substitutions; pharmaceutical preparations and dose; antagonists and incompatibles; synergists; physiological action; therapeutic properties; toxicology and antidotes.

At the end of the year the reports published in the GAZETTE will be collected, classified, and published in the form of an ANNUAL REPORT, which will be donated to the libraries of the Smithsonian Institute, a government institute at Washington for the free diffusion of knowledge; and a sample of the drug, and our preparation of it, will be deposited in the National Museum, in the department delegated to pharmacology.

SENT OUT BY

THE SCIENTIFIC DEPARTMENT OF

PARKE, DAVIS & CO.,

Manufacturing Chemists, Detroit, Mich., U. S. A.

FRANKENIA GRANDIFOLIA.

Synonym—Yerba Reuma.
Part Employed—The whole plant.
Natural Order—Frankeniaceæ.
Habitat—California.

Botanical Origin and History.—Report from Southern Clinic. (Therapeutic Gazette, January, 1881.) This is one of the many new remedies which have been introduced to the medical profession by Parke, Davis & Co., Detroit, Michigan. It is an herbaceous plant growing at the foot of the Coast Range of Mountains, California. The whole plant is used in medicine, and the dose is from ten to twenty grains. It is best administered in the form of a fluid extract. It is a detergent and astringent. Flowing or Flux Plant is the name it has received from the Spaniards, as it was used by them for the treatment of inflammations of mucous membranes of a catarrhal nature. It is indicated in and is a specific for such diseases. It may be administered either internally or topically, but is far more effectual when used in the latter manner.

Report from C. W. Hansen, M. D., Milwaukee, Wis. (New Preparations, February, 1879, p. 29): My attention has been called to an article under the caption "Testing Drugs," by Prof. A. J. Howe, M. D., in the Chicago Medical Times.

The learned professor is relating his experience as a "tester," or rather "taster" of Frankenia grandifolia, or, as it is commonly called, yerba reuma. Starting out with the astonishing statement that it is well known that the climate of the Pacific Coast is not favorable to the development of medicinal qualities of plants!!! he proceeds to state that "his credulity in insulted" with regard to yerba reuma. I quote from his article:

"The stem and branches of the bush, if examined with a magnifying glass, exhibit crystals of sea-salt that have been condensed upon the weed as it grew in the briny breeze of the California coast. A dead tuft of grass exposed to the ocean vapors would gather crystals of chloride of sodium. . . . . If the therapeutist will taste and chew a specimen of the yerba reuma, he will get the salty flavor first, and then the woody inertness peculiar to dead vegetables that contain no sapid qualities, whether medicinal or not."

Having resided for several years in California, and being familiar with the yerba reuma in its native habitat, I am perhaps qualified to express an opinion in this connection, and, judging not only from Dr. Howe's statements, but also those of Dr. W. P. Gibbons, in the Pacific Medical and Surgical Journal (who obtained his samles of "yerba reuma" from the same source, Cincinnati), I should judge that Dr. Howe had been testing a sample of the bryzopyrum spicatum. In this case I do not wonder at the learned professor's deductions, as the plant in question would produce like results in the "taste."

I would not for a moment suppose that Dr. Howe would appear in print without being thoroughly familiar with his subject, but for those less informed as to the plants on the Pacific coast, and with the conditions governing the development of their medicinal qualities, I will state that the frankenia grandiflora grows in abundance in some of the arid portions of the Sacramento valley, some two hundred miles from the sea, and separated from it by seven or eight mountain chains or ridges, one of them attaining an altitude of over 8,000 feet. How a man, claiming to be a scientist, a teacher of men, can for a moment imagine that the "briny breeze of the California coast" (quite poetical) can pass over chains of mountains, covered with dense forests, and finally deposit crystals of chloride of sodium on a small weed growing two hundred miles inland, is a mystery to me. I cannot comprehend it. I for one am not willing to have my "credulity insulted" by such a statement, even coming from such high authority. I even confess my inability to believe that a dead tuft of grass exposed to the ocean vapors should to any appreciable extent become impregnated with these crystals, to the exclusion of the trees and innumerable smaller plants growing to the very verge of the cliffs bordering the Pacific ocean. I fear Professor Howe has heard so much about the glorious climate of California, that it has led him believe that the favored land is governed by separate natural laws; that according to these laws medicinal plants are ruled out of existence, as it were, and that, consequently, it becomes a sacrilege for Dr. Bundy and others to attempt to destroy this illusion.

In conclusion, I join the professor in requesting the therapeutist to taste and chew a specimen of yerba reuma. If, back of the salty taste, he does not find a strong flavor resembling tea, and a very decided astringency, then I confess my taste to be degraded; otherwise I claim that Professor Howe, in the rôle of a "taster," is a failure.

Report from J. H. Bundy, M. D., Oakland, California. (New Preparations, January, 1878, p 2): This drug will, for the present, close the list of new remedies which I have to introduce to the profession, as I have but one more that I am at present testing, and it will be some time before a thorough and positive test can be made, so as to bring it into the list with a certainty as to its positive action; and it never will be presented until a complete and thorough knowledge of its use is understood. After months and years of careful study and investigation, and I may say toil, for there is no little labor in the careful investigation of an unknown drug, to exactly determine its use in medicine, from the fact that it can only be done by taking and giving, and noting its action upon every system—the nervous—cerebro-spinal, and ganglionic, and the functions as a whole, over which these systems preside, and so satisfactorily determine this action. With no little pride do I look over the list: Yerba Santa, Grindelia Squarrosa, Berberis Aquifolium, Cascara Sagrada, and the last in order, Yerba Reuma, and feel that my efforts in this direction have not been in vain, but that the medical profession will have gained something in the drug list which it will gladly claim and accept for the relief of suffering humanity.

The Yerba Reuma is a plant, herbaceous, growing near the foot-hills of the coast-range mountains. It passed out of flower before my attention was called to it, but in due time its name will botanically be obtained. Its Spanish name implies, flowing or flux herb. It contains largely chloride of sodium, and a peculiar astringent. It is only as a local remedy that I have ever tested it.

When a case of dysentery presents itself, I shall give it a fair trial in half-drachm doses (or of the fluid extract ten minims) every two or three hours; also locally in catarrhal ophthalmia and gonorrhœa.

I have shipped to Parke, Davis & Co. a very limited supply, and no more can be obtained before July.

Report from Therapeutic Gazette, February, 1882, p. 60: Yerba Reuma is an herbaceous plant, indigenous to California and growing near the foot-hills of the coast range of mountains. It takes its vulgar name from the fact that it was found by the Spanish residents to be possessed of properties which made it valuable in chronic discharges from mucous membranes, the interpretation of the name being "flowing" or "flux" herb. The plant is small and shrubby with a prostrate, much branched stem, about six inches in length.

Chemical Composition.—Report of Carl Jungk, Ph. D., Detroit, Mich. (New Preparations, March, 1879, p. 55): Herewith I hand you the result of an analysis of the plant yerba reuma (frankenia grandifolia). The analysis comprises the whole plant, such as was at my disposal, in a coarsely pulverized state. The small quantity of water—4.68 per cent.—proves that the plant was nearly dry, which accounts for the impossibility of a determination of albumen, which can only be reached in fresh plants.

The substance analyzed was operated on in a state of desiccation of from 92 to 95° C.; organic constituents were dried and weighed at a temperature not above 100° C. Subjoined is the result of the analysis:

Organic Ingredients and Water.	Per cent.	
Water	4.680	
Sour resin soluble in aq. ammon	16.983	
Extractive matter soluble in alcohol, and slightly in ether	3.111	
Tannic acid, coloring iron green	0.231	
Tannic acid, coloring iron bluish black	5.559	
Chlorophyl	1.825	
Greenish brown coloring matter	3.528	
Pectine matter, starch and gum	6.646	
Cellulose and lignin	16.823	
Oxalic acid	0.240	
		59.626
Inorganic matter.		
(*a*) Soluble in water.		
Chloride of sodium	28.049	
Chloride of magnesium	1.350	
Sulphate lime	1.474	
Sulphate soda	2.547	
		33.420
(*b*) Soluble in muriatic acid.		
Oxide iron	1.710	
Alumina	0.980	
Sulphate lime	3.220	
		5.910
(*c*) Insoluble in muriatic acid.		
Salicic acid	0.450	
		0.450
		99.406

Besides this, I found, after total combustion, in the ashes, four per cent. carbonic acid, which I cannot include in the analysis, because it grew out of the action of carbon on sulphate of lime and has no connection with substance of the plant. The sour resin is soluble in aqua ammoniæ and alcohol—tastes slightly bitter, reacts mildly acid. The resin, soluble in alcohol, is indifferent, almost tasteless, without reaction, not soluble in water and but slightly in ether. The solubility of the substance of the plant in different re-agents is the following:

In water	60.579 per cent.
In diluted aq. ammoniæ	24.829 " "
In ether	1.825 " "
In alcohol, strong	38.610 " "
In water with sulphuric acid	43.637 " "

The microscope shows in the tissue of leaves as intercellular substances, mucus starch; also distinctly crystals of chloride of sodium and of gypsum. The leaflets appear smooth on the edges, but the microscope brings out a great number of thin hair-like prolongations, which apparently with eagerness absorb salt solutions. It can be noticed, if a very small quantity of brine is brought in contact with them, that not any appreciable salt crust remains on the object glass.

Since I made these observations only on tolerably dry plants I will not venture to decide whether or not in their wet condition they give off water and retain the salt; to suppose that they do would explain their considerable richness in salt. Their therapeutic qualities probably are to be ascribed to the resins, tannic acid and salt which would corroborate the observations heretofore made.

This richness in salt, for a plant grown in sandy soil, is very singular, and it would be interesting to make the experiment of transplanting it into different soils, and from time to time to examine its proportion of salt, tannin and resin, as well as to have a quantitative examination of the soil in which yerba reuma actually grows.

I will describe a similar experiment (which I made in Germany, but had to discontinue on account of my emigration) on datura stramonium, when again you offer me the columns of your interesting monthly, New Preparations. Possibly some of your readers might be induced to repeat the experiment and carry it through to satisfaction. I am also willing to bring to a wider notice some observations on diabetic urine, which are of great significance for the analyst and physician.

Report from Therapeutic Gazette, February, 1882, p. 60: The plant contains an astringent principle and an abundance of muriate of sodium, the latter being disposed on its exterior in a fine state rather than incorporated into its texture. An analysis of the plant by Prof. Carl Jungk, Ph. D., shows it to contain nearly six per cent. of tannin yielding the characteristic bluish-black precipitate with the salts of iron, while of the ingredients soluble in water the following, with their percentages, are given: Chloride of sodium, 28.049; chloride of magnesium, 1.350; sulphate of lime, 1.474; sulphate of soda, 2 547. This richness in salt, for a plant grown in sandy soil, is very remarkable, and is sufficient to arrest the attention of the thoughtful physician. In the gauntlet which yerba reuma in common with many of the other more recent introductions to the materia medica, has been obliged to run, this richness in the sodium salt was sought to be ridiculed by a certain wise man of Cincinnati (Howe by name) who explained the deposit on the leaves and branches of the 'bush' by the assertion 'that it was "sea-salt condensed upon the 'weed' as it grows in the briny vapors of the California coast." The statement is but another illustration of the ridiculous attitudes into which men, particularly controversialists, will sometimes lead themselves in their efforts to conform incontrovertible facts to their hypotheses. The absurdity of this method of accounting for the salt on the plant was so admirably shown up by the late Dr. Bundy, the introducer of the drug to the attention of the profession, in a memorable dispute regarding it, that we are constrained to reproduce the exposé:

"We are then deliberately told that 'a dead tuft of grass exposed to the ocean vapors would gather crystals of chloride of sodium.' Now the learned (?) professor probably does not mean 'vapors,' as it is a well known natural law that vapors do not carry solids. Let us charitably construe that he means spray, and contemplate the wonderful idea that ocean spray flying over the peaks of the coast range of mountains (which tower upwards from 3,000 to 8,000 feet above the sea) and over a horizontal space of one hundred and fifty miles, and then depositing its salty burden on a modest little plant some three inches in height, carefully avoiding the great live oaks, the manzanita, chaparral and other trees in the vicinity. Wonderful! We should be disposed to discredit this statement did not the learned (?) professor confidently assert that he found sea salt.

The doctor further tells us that "he chewed the 'yerba reuma' and found it contained, beside its salty flavor, no sapid qualities, whether medicinal or not." Now we are more than ever convinced that the doctor is a little "off," for yerba reuma (frankenia grandifolia) develops very peculiar and pronounced astringency when chewed, and has given in my hands as well as those of other physicians, excellent and unmistakable medicinal effects. The fact probably is that the learned doctor has chewed a part of that same specimen of bryzopyrum spicatum which Lloyd so confidently sent to Dr. Gibbons for yerba reuma, and on which that fanatic worked off such a venomous attack on New California Remedies.

Report from Southern Clinic. (Therapeutic Gazette, January, 1881, p. 37): On analysis it has been found rich in tannin and chloride of sodium, and to these constituents it owes much of its medicinal value.

Physiological Action and Medical Uses.—Report from Southern Clinic (Therapeutic Gazette, January, 1881, p. 37): The diseases in which it has been exhibited with great advantage are chronic nasal catarrh, ophthalmia, gonorrhœa, leucorrhœa and dysentery.

Dr. Lennox Brown, of London, after a variety of careful clinical tests concluded that eucalyp-

tus was the remedy par excellence for chronic catarrh and subacute inflammation of the throat. We have used both yerba reuma and eucalyptus, and give the preference to the former. It can be diluted with three parts of tepid water, and snuffed up the nostrils; or, it can be exhibited by the atomizer; and, lastly, it can be mixed with salt and powdered arnica flowers, and used as a snuff. It at once arrests the formation of crusts, relieves the patient from the offensive odor of the foul secretions, contracts the capillaries, and produces a healthy condition of the mucous membrane. Many cases can be relieved at once, and by continuous treatment cured by the use of the snuff. It is preferable to exhibit the fluid extract by the Codmam & Shurtleff steam atomizer and Rumbold's atomizing tubes.

When used for ophthalmia it has been found very valuable. No caustic applications are to be applied. The eye is to be kept clean by gently sponging with a fine linen rag. Boracic acid of the strength of four grains to the ounce of water may be dropped into the eye twice daily. The sheet anchor is fluid extract yerba reuma, diluted with ten parts of distilled rose-water, applied every hour or two by dropping into the inner canthus of the eye. With this, and such other constitutional treatment as may be demanded, a cure can be readily effected in a short time. Such is my experience.

It is not so well adapted for the treatment of dysentery in the acute form as some preparations of opium, but it is valuable as an adjuvant. Here it must be administered internally, and so powerfully astringent is it that it oftentimes becomes necessary to moderate its effects by combining it with castor oil. The best way in which to give it is hourly in minute doses, alternating with teaspoonful doses of Epsom salts, until the discharges have lost their dysenteric character and assume a healthy type. It ought never to be omitted as a cardinal medicament in chronic dysentery and diarrhœa.

In urethritis and gonorrhœa it takes the place of balsam copaiba, cubebs, and other nauseous compounds. It is used as an injection, well diluted with warm water every hour for the first twenty-four or forty-eight hours, and then at longer intervals until the discharge ceases. Saline cathartics may be used as adjuvants. The most marked success has followed this practice, and the duration of the disease has been reduced from six weeks to a few days. The strength of the mixture may be increased from time to time; but it is always well to begin with a mild injection.

The last affection where it has been found of inestimable value is leucorrhœa; but, as this is a symptom of many varied uterine troubles which require to be cured before the discharge can be stopped, it is useful only to keep the parts clean and free from irritation.

Leucorrhœa is an effect of almost every uterine displacement and disease, and the remedies must be directed to the cure of the cause, when the effect will cease. It is in vaginal leucorrhœa that we observe the great value of yerba reuma. It must be administered, to obtain its full effects, by means of a fountain syringe, diluted with water as hot as can be conveniently borne, and a continuous stream kept up for at least one quarter of an hour. Dr. Lord, of Plane, Ill., has invented a very good instrument for the purpose.

There can be no question that this is a remedy of great value, and I can only urge the profession to give it a trial and use their endeavors to give it the popularity which it merits.

Report from Therapeutic Gazette, February, 1882, p. 60: Yerba reuma was introduced as a topical application in catarrhal affections of the mucous membrane. This use of it was derived from the Spanish residents of the Pacific coast, among whom the drug has long been favorably known in this connection. Subsequent analysis demonstrated the scientific grounds for this application, viz., the sodium salt and the astringent principle. It has, however, been frequently demonstrated that the combinations which nature effects in her laboratory, differ often in therapeutic properties from those which man produces, and in the case before us, the artificial synthesis of the ingredients which analysis shows the drug to contain, falls far short in point of medicinal efficacy of nature's work in the same direction. The fluid extract, diluted to the strength of ʒ j to the pint of lukewarm water, applied in the form of a douche, the stream being thrown from behind forward is a valuable application in nasal catarrh of the chronic variety, in which the discharge is muco-purulent in character. This application, while thoroughly cleansing the parts, combines astringency with an alterative action, which results in lasting favorable effects. The strength of the application may be increased with increased toleration of the parts.

In vaginal leucorrhœa, an injection of the drug, diluted strength of ʒ ij of the fluid extract to the pint of water, has been found valuable.

In gonorrhœa, after the subsidence of the acute stage, free injections of the same strength as recommended in leucorrhœa, have been employed with very satisfactory results in a number of reported cases.

The value of yerba reuma internally is still sub judice, but the reports which have been received of its use in chronic catarrhal affections of the alimentary tract, coupled with its known chemical constitution, are sufficient to justify more extensive trials in this direction.

Report from J. G. Harvey, M. D., read before the District Medical Society, Illinois, October 29, 1878. (New Preparations, July, 1879, p. 31): This herb is of especial service as a remedy in nasal catarrh, leucorrhœa, dysentery, gonorrhœa, and in fact all affections of the mucous membrane. I have been using it in nasal catarrh with benefit, using of the fluid extract ʒ j to water ʒ viij, and snuffing up the nostrils three times daily.

Report from J. H. Bundy, M. D., Oakland, California (New Preparations, January, 1879, p. 3).

Yerba reuma is another drug lately brought to the notice of the profession by myself, under a Spanish appellation. This, like cascara, though acting in a different manner, acts upon the mucous surfaces. While giving tone to such membranes, it at the same time constringes locally the secretions by its action upon the secernant system through the processes of tonicity and contractility, when locally applied. As an internal remedy, I am carefully testing the drug, and after further investigation will report in that direction. From the above facts, which were obtained from cases too numerous to mention, in its use upon mucous surfaces since I introduced it as a remedy in nasal catarrh, leucorrhœa, gonorrhœa and gonorrhœal ophthalmia, and the experience of a good number of physicians who confirm my investigations of the remedy, I am positive it will prove to be one of the best drugs in such diseases. In this part of the country it stands paramount in these complaints. Try it and satisfy yourself.

THERAPEUTIC PROPERTIES.

Reports from Private Practice.

1.

Report by J. H. Tilford, M. D., Windom, Minn. (New Preparations, January, 1879, p. 11.): About three months ago I commenced experimenting with the new fluid extracts, yerba reuma and berberis aquifolium, in catarrh; also latter remedy in eczema; have found them to meet every indication of the disease, and all that is claimed for their action.

2.

Report by J Helmick, M. D., Harrisburg, O. (New Preparations, July, 1879, p. 166.): In the May number of your valuable journal, I saw an article from Dr. Weinstein, of Indiana, upon the treatment of herpes zoster by the fluid extract of yerba reuma. I have had within the past two weeks several cases of herpes, in which I used the fluid extract of yerba reuma as a local application, in the full strength. Found it to act admirably, and I would commend it to the profession as the local application in herpes zoster.

3.

Report by F. A. Mandeville, M. D., Rochester, N. Y. (New Preparations, August, 1879, p. 195): Some months ago my attention was called to yerba reuma by articles in your journal on its use in the treatment of catarrhal affections, and since that time I have given it a thorough trial. I have probably used it more in the treatment of nasal catarrh than any other disease, and as a local application in the troublesome affection it has certainly proven itself valuable. I generally use it in the strength of a drachm to a drachm and a half to the ounce of water, and apply it by means of the post-nasal syringe, previously cleansing the nasal cavity with tepid water, with the addition of a few grains of bi-carbonate of soda. At home I have patients snuff the solution of yerba reuma up into the nostrils from the palm of the hand. Used locally in this way I have noticed a diminution in the discharge and an improvement in the condition of the mucous membrane lining the nasal passages. In the more acute cases, where we find the parts swollen and inflamed, with excoriation of the membrane in the anterior nares, yerba reuma certainly exercises a very beneficial effect by subduing the inflammation, and healing up the excoriated surfaces.

4.

Report from J. H. Bundy, M. D., Oakland, California (New Preparations, January, 1878, p. 2): My first test was that upon my friend, Dr. Thomas Porter, who had suffered two years from nasal catarrh. I prepared a tincture, using four ounces of the drug to a pint of alcohol (25°), and gave

℞ Tinct. yerba reuma, one fluid ounce.
Water, three fluid ounces.

M. S. Snuff one teaspoonful from the hand through each nostril three times daily. In three weeks Dr. Porter was cured, and remains so. He had tried everything recommended with but little benefit. He suggested its use in leucorrhœa. I tried it and the result in every instance was a cure. I gave it in the form of an injection in gonorrhœa, and the result was the same, one four-ounce mixture performing the cure.

My friend, and now partner, Dr. C. W. Hansen, carrying on the drug business at the time and being often called upon for something for gleet, put up the same, and in one week the patient reported himself cured. Other cases followed, and were likewise cured.

In using it as an injection in gonorrhœa, the urethra should be cleansed with simple water, and followed by the injection; in leucorrhœa, the same. If desired it may be made stronger, but that is as strong as I have used it. In using the fluid extract, two fluid drachms to four fluid ounces water will answer the purpose.

It should be retained by pinching the end of the penis, and withdrawing the syringe for a few minutes. You will find it to excel every other remedy for the above diseases, and this is not likely to constitute its range as a remedy.

5.

Report from J. H. Bundy, M. D., (New Preparations, July, 1878, p. 15): Since my last paper on this drug I have treated a large number of cases of coryza and ozœna with results of a more satisfactory character, some yielding readily, others more tardily, but surely and steadily, to a termination perfectly satisfactory to my patients, and highly gratifying to myself.

Mr. C. called for treatment. Had suffered for years with catarrh; breath offensive; pain through molar bones and bridge of nose, passing back into basilar regions; considerable discharge from posterior pares into the throat, with dry hacking cough; felt drowsy and languid, with no disposition whatever to attend to business. Had taken and used all the remedies of the day for his condition, and failure after failure resulted in perfect discouragement to him, as he had given up hopelessly. I examined him closely and carefully. Found the middle and upper aspect of the canal or cavity thoroughly filled with crusts and pus, which ex-

tended backward to above the uvula, and the uvula itself also loaded with the discharges. I prescribed:

℞ Fl. ext. yerba reuma, ʒ ss.
Aquæ dest., ʒ iij ss.

M. Sig. From the hand snuff one teaspoonful three or four times daily, after thoroughly cleansing the parts in the same way with warm water.

℞ Fl. ext. berberis aquifolium, ʒ ij.
Aquæ dest. and syr. simp., ää ʒ iij.

M. Sig. Take one teaspoonful four times daily.

After three weeks' treatment there was no further formation of the crusts, the secretion, which was excessive, thoroughly restrained, appetite good, drowsiness subsided, and the patient cheerful and delighted with his prospect. Continued the treatment for twelve weeks when the patient was discharged well and perfectly satisfied with treatment.

M, F., æt. 40, applied for treatment. He could not tell how long he had been troubled with catarrh. Had constant pain in the eyes and back of head; said he always had cold, and was constantly sneezing, which kept up horseness and sore throat. Would be taken sneezing suddenly, ocular conjunctiva highly injected, and, as he said, a stream of water constantly flowing from the nose and eyes. His general health did not seem to suffer much.

℞ Fl. ext. yerba reuma, ʒ ss.
Aqua dest., ʒ iij ss.

M. Sig. From the hand snuff one teaspoonful three or four times daily. Had suffered from constipation some.

℞ Fl. ext. berberis aquifol., ʒ ij.
Fl. ext. cascara sagrada, ʒ j.
Syr. simp., ʒ iij.
Aqua dest., ʒ ij.

M. Sig. Teaspoonful three times daily. Continued treatment nine weeks and was discharged.

Mrs. L., about 40, had suffered from cough for two years—constantly hawking and spitting the moment she would lie down (could not sleep or rest well on this account). She became alarmed about herself as she was sure she was expectorating tubercles. From examination I found a bad case of ozœna, involving the osseous structures to some extent. I found that the tubercles she was expectorating came from the posterior nares, and also I found them about the curtains of the fauces, firmly imbedded into cavities which they exactly filled. I removed a number of them. The size varied from that of the head of a pin to that of a common pea, and their fetor was unbearable. Her symptoms were anomalous—pain in the head, chest, back and limbs, occasionally partially deaf, and a long train of nervous symptoms that tires one to listen to or relate. She lived close by, and I directed her to visit my office every other day. With warm water (and cold water should never be used locally in catarrh as it invariably produces symptoms of acute coryza, which are very distressing, and which will last for hours), and a nasal syringe with a crooked nozzle I freely irrigated the nasal cavities by injecting postero-anteriorly, and *vice versa* (using considerable force with the spray), until I had thoroughly cleansed the parts. I then used one syringeful of:

℞ Yerba reuma fl. ext., ʒ ss.
Aqua dest., ʒ iij ss.

M. Giving her a bottle of the same to snuff three times daily.

℞ Berberis aquifol., fl. ext., ʒ ij.
Syr. hypophosphites co., ʒ iv.

M. Sig. Take teaspoonful three times daily.

I kept up the irrigation and injection for six weeks, when it was discontinued. There was no change in treatment from this time for ten weeks, when she was discharged fat and happy. I gave the hypophosphites as a restorative from the fact of her being much reduced in flesh and strength, and the nervous system quite prostrate.

Mr. H., æt. 28, had suffered two years with nasal catarrh. The left cavity was much thickened and swollen, so much so as to obstruct the passage of air or liquids through it to some extent; had a dry hacking cough with considerable bronchial irritation.

℞ Fl. ext. yerba reuma, ʒ ss.
Glycerine, ʒ ss.
Aqua dest., ʒ iij.

M. Sig. With a syringe inject one teaspoonful antero-posteriorly three times daily.

℞ Iodine, ℈ j.
Chloroform, ʒ ij.

M. Sig. Use as inhalation three or four times daily through the nostril, as one would of smelling salts, for a few minutes, or until the effects of the chloroform are felt, then desist.

℞ Fl. ext. yerba santa, ʒ j.
Fl. ext. berberis aquifol., ʒ ij.
Glycerine, ʒ iij.

M. Sig. Take teaspoonful three times daily.

Made no change in treatment from beginning to end, and at lapse of 14 weeks the thickening was entirely removed, bronchial irritation and cough had disappeared, and the case discharged. It should hardly be necessary to state that catarrh in all its forms is a subtle and stubborn malady to treat, and that persistence is necessary if you would perfect a cure. If the case is a bad one, I invariably use the syringe myself, and it is a matter of considerable importance that one should be skilled in its use lest he inflict some injury to the soft parts of the throat, and posterior nares; and it is equally important in many cases that the physician himself should use it in order to reach all the recesses of the parts.

All of these cases require constitutional treatment, and for this purpose the berberis aquifolium fills the indication to the letter. The state of the bowels may need attention; if so, nothing will prove as satisfactory as the cascara sagrada. I have a large number yet to report, but time forbids. More anon.

6.

Report from C. W. Hansen, M. D. (New Preparations, July, 1878, p. 18): My experience with this remedy has demonstrated to my satisfaction that, locally applied, it is a specific in chronic inflammation of mucous membranes, attended with hyper-secretion of mucus, and consequent partial denudation of the epithelial covering, causing the patient to complain of a feeling of rawness, and also where destructive ulceration is going on, as indicated by a purulent discharge. It matters not whether the disease be called gonorrhœa, cystitis, bronchitis, or nasal catarrh, in the chronic forms of either, when presenting the conditions mentioned above, yerba reuma has proven a most valuable remedy in my hands. In hypertrophy of mucous membranes, I prefer the carbolate of iodine.

Probably the greatest benefits to be derived from yerba reuma is in the treatment of chronic nasal catarrh. Even when the disease has progressed so far as to partially destroy the turbinated and other bones, the remedy will arrest the progress of the disease in a remarkably short time. Too much stress cannot be laid on the mode of application; in nine cases out of ten, the main seat, the stronghold, I may say, of the disease, is the vault of the pharynx, and the only certain way I have found of reaching it is through the curved nasal syringe; the hydrostatic and other methods are all very good, as far as they go, but they fail to reach the majority of cases.

In taking charge of a case of catarrh, I always insist on the patient coming to my office at least three times a week; then, after injecting salt water

a few times to cleanse the membrane of accumulated mucus, or muco-pus, as the case may be, I use an injection of

℞ Fl. ext. yerbæ ruemæ, ʒ j.
Aquæ destillatæ, ʒ iij,

adding a few drops of carbolic acid, if there be much fetor. With a little dexterity and practice, the nozzle of the syringe can be passed behind the velum pendulum palati, and the several injections made, with scarcely any inconvenience to the patient. I also give the patient a bottle of the same mixture, directing a small quantity to be snuffed from the palm of the hand, through each nostril, two or three times daily. As to the constitutional disturbances, of course they will require appropriate treatment at the same time. Whether yerba reuma will prove to be of value as an internal remedy, remains to be seen.

7.

Report by L. J. Wienstein, M. D., Terre Haute, Ind. (New Preparations, May, 1879, p. 107): Allow me, through your valuable journal, to communicate some of the results of my experience. Although in active practice for over twelve years, this is the first time my name has appeared as a writer. I hope, therefore, you will allow for my blundering manner of writing. I firmly believe in the mottoes "Try, try again," "Prove all things; hold fast to that which is good." The first thing I will speak of is what is sometimes a very painful and troublesome disease of the skin, namely, herpes zoster, or "shingles." It occurred in a child nine years old, in my own family. She complained of terrible itching and neuralgic pains for a few days. Not having paid any attention to her complaints (you know a shoemaker always goes barefooted), the affection proceeded until the third day without treatment. When I got home about 9 P. M. my wife spoke to me and said Carrie was real sick. I examined her and found a broad zone of vesicles extending from the sternum on right side around her waist and chest to the spinal column, very tender and irritable. Not having any medicine in the house but a part of a two-ounce mixture of Parke, Davis & Co.'s fluid extract of yerba reuma, which I had been using for leucorrhœa, in equal parts of the fluid extract and water, I told my wife to thoroughly wash the parts with it until morning, and that then I would apply the proper remedies. In the morning, to my surprise, I found the vesicles mostly ruptured, the surrounding inflammation of a darker red, and after the second application all pain and itching were gone. I then made a few applications of the fluid extract, full strength, and the trouble was at an end. I write this as I have not observed the remedy recommended for any such diseases. I do not think I ever saw such rapid decline of the disease with any other remedy, and I know I never saw the pain and itching go away so quickly with anything else.

8.

Report from John Cass, M. D., Hamilton, Ohio. (Therapeutic Gazette, February, 1880, p. 41): I am delighted with my success in the use of yerba reuma. I have used it in catarrhal affections, leucorrhœa, gonorrhœa and gleet with the utmost satisfaction. In the latter affection it is my "sheet anchor." I have cured the most difficult cases of gleet—one, in particular, of twelve years' standing in a gentleman who had been under the observation of the most distinguished surgeons of America without any effect. I put this patient immediately upon yerba reuma, without any constitutional treatment, and in a few days a perfect cure was effected. I consider the profession under great obligations to those who have placed in their hands an agent of so much value.

9.

Report from R. J. Lemont, M. D., Southwest Harbor, Me. (Therapeutic Gazette, May, 1880, p. 130): I have found yerba reuma to exert a very decided alterative action on the mucous surfaces. In vaginal leucorrhœa depending on atony of the walls and characterized by profuse secretion, the internal administration of the drug has been followed by marked improvement.

10.

Report from J. M. Blackerby, M. D., Milford, Ky. (Therapeutic Gazette, May, 1881, p. 167): Among the many drugs used by the profession in the treatment of gonorrhœa may be classed the two articles heading this paper. In the treatment of a case of chronic gonorrhœa I have found nothing preferable, in fact nothing that seems so well to meet all the demands necessary to a speedy and permanent cure. In treating some of the more severe acute attacks, when the early febrile symptoms run very high, I sometimes begin the treatment with such other remedies as are indicated to reduce the fever and quiet nervous excitement, following these with the two articles above named. That my mode of treatment may be more easily comprehended, I will refer to a few cases taken from my note book with the course of treatment given in each case.

M. H., æt. 27, bar-tender. Was consulted by this man May 26th, 1879, for a case of gonorrhœa of some three months' standing. Had been treated up to this time by another physician of our place, but with no benefit. Found patient with firm pulse 108 and hard, temperature 101½°, skin dry, tongue heavily coated and pasty, mucous membranes pale. In this case I gave no cathartic medicine as the bowels were moved twice a day on an average, but prescribed:

℞ Sodii sulphitis, gr. xvj
Podophyllin, gr. jss.

Mix and divide in chart No. 8.

Sig. One to be given every six hours. This I supplemented with:

℞ Tr. verat., virid., gtts. xx
Spts. etheris, ait. ʒ jv
Aquæ dest., ʒ jv.

M. Sig. A teaspoonful to be given every hour until the pulse was reduced to 80, unless the medicine produced sickness, in which event the drops are to be given every two or three hours, as the case required.

I saw the case on the evening of the 28th; found him relieved of fever, tongue clear, pulse and temperature normal and the patient ready to receive the necessary treatment for the gonorrhœa, which was discharging freshly. For this I prescribed:

℞ Ext. kavæ kavæ fluidi, ʒ iij
Spts. etheris nitrosi, ʒ j
Elixir. simplicis, ʒ ij.

Mix. Sig. A teaspoonful three times daily; and supplemented this with the following:

℞ Ext. yerbæ reumæ fluidi, ʒ j
Aquæ dest., ʒ v.

Mix, and inject a small syringeful into the urethra three times daily. This patient was entirely well after using one bottle of kava kava mixture and two bottles of the yerba reuma mixture. I am quite certain I have never had a case of gonorrhœa of the same intensity of symptoms relieved so speedily as was this case. The patient told me he had had the disease several times before, and had never obtained so speedy and complete relief in either attack, and had been treated by able physicians in all the attacks, but with very nauseous and disagreeable remedies.

C. B., æt. 23, contracted a case of gonorrhœa in the spring of 1880 and was treated by physicians in Indiana for several weeks, and on leaving there

and going to Southern Kentucky was subsequently treated for the same attack by two physicians in that part of the state; in all about six months, but without a cure. On his return home to this part of Kentucky, he called on me to examine him and prescribe for him. I found this patient full of malaria contracted while in Indiana and Southern Kentucky, and hence began the treatment by attempting to break up the malarial influence in the system. To do this first prescribed two compound cathartic pills at bed time, followed in the morning with castor oil if necessary. This was supplemented with cinchonidia sulph. in five grain doses four times a day, the last on retiring. Continued the cinchonidia for several days, then prescribed the following for the urethritis:

℞ Ext. kavæ kavæ fluidi, ʒ iij.
Ext. berberis aquifol. fluidi, ʒ ij.
Elixir simplicis, ʒ iij.

M. Sig. A dessertspoonful three times daily, and to use as an urethral injection the following:

℞ Ext. yerbæ reumæ fluidi, ʒ ij.
Aquæ dest., ʒ vj.

Mix. Inject one syringeful four times a day.

As this patient did not live near me, I failed to see him for five or six weeks, at which time he told me he was entirely well and had used but little over one-half the medicine. I have seen him on an average once in two weeks this spring and during the winter, and he tells me he has no symptom of gleet following his disease.

I could present many more cases from my note book, some of them rare specimens of the disease, cured by the same treatment, but it would only be to recapitulate. My object in writing this article, is to show the result of the effect of the two leading drugs in the use I have made of them in my practice. As yet I have no ground of complaint of them, and should I be again called to treat a case of gonorrhœa, acute or chronic, I would use these drugs, premised by such other treatment as the indications in each case seemed to demand. In the kava kava we have an agent that seems to meet several demands in the treatment of urethral inflammations. As a blennostatic, I think it not inferior to any that I have found, and it seems in my hands to have earned an enviable reputation as a sure and powerful diuretic, largely increasing the flow of urine and altering its ammoniacal condition. Under its influence the high colored or deep brown urine becomes limpid and clear. Kava kava also possesses excellent tonic properties, stimulating the secretions and increasing, or rather improving, the appetite. Yerba reuma, as a local application in the treatment of inflammations of the mucous membranes, along with kava kava, has few equals, if, indeed, any. Its stimulating yet soothing influence upon them renders it a desirable agent in the treatment of inflammation of many of the mucous membranes, and one, I think, physicians will soon learn they cannot well do without in many such cases.

11.

Report from C. H. Adair, M. D., in N. Y. E. Medical and Surgical Journal: From an extended acquaintance with the medical properties of this plant, I am more and more impressed with its value in nasal catarrh, leucorrhœa, gonorrhœa and dysentery. And not only is it valuable in diseases of mucous membranes, but I have been using it in fevers where alkaline treatment was called for. In such cases, cures have resulted from the use of tincture of yerba reuma, unassisted by any other medicine.

In nasal catarrh, I ordered the patient to snuff up, from the palm of the hand, three or four times a day, a teaspoonful of the following:

℞ *Tinct. yerbæ reumæ, f., ʒ i-ij.
Water, f., ʒ iv. M.

I have an account of eighteen cures of nasal catarrh, some years' standing, that resisted all previous treatment.

The tincture is made from eight ounces of the plant to one pint of 30° alcohol. The tincture, in odor and taste, reminds one of catechu. Analysis shows a large per cent. of chloride of sodium in the plant.

I have performed cures in leucorrhœa after such remedies as salicylic acid and permanganate of potash had entirely failed.

I have injected it in gonorrhœa with fine effect. It will be found of value in dysentery, where the alkaline treatment is called for. In diarrhœa, with fever, calling for alkaline treatment, I have had success.

I give you a case to illustrate the use I have made of it: Was called to see a child, nine years old. For several days the child had been complaining—dull and sleepy. For the last two days had from eight to ten operations daily from bowels, with vomiting of bilious matter. Found tongue coated dirty white; pulse 110 and very weak; pupils dilated. Ordered:

℞ *Tinct. yerbæ reumæ, f., ʒ ij.
" aconite rad., f., ʒ ss.
Syrup orange peel, f., ʒ jss.
Water, f., ʒ ij.

M. Sig. Teaspoonful every three hours.

Twenty-four hours after found patient much improved in every respect. Bowels had moved but four times since commencement of treatment. In three days able to be about.

In introducing to your readers this new remedy, I am satisfied that I am placing in the hands of my brother practitioners a medicine that will not disappoint them in the diseases I have mentioned.

12.

Report from J. M. Blackerby, M. D., Milford, Ky. (Therapeutic Gazette, October, 1880, p. 288): In the treatment of nasal catarrh my attention has, in the two years past, been called to the use of some of the new remedies, and notably to yerba reuma, berberis aquifolium and penthorum sedoides. In the administration of these remedies, I use the berberis exclusively as an alterative tonic, either when the case is simple catarrh, or when it is complicated with trouble in the throat. In many cases of laryngeal complication I find a decided benefit from the use of penthorum, especially, after hypersecretion takes place from the enlarged mucous follicles of the fauces. In the local treatment of catarrh I seldom find it necessary to resort to any other agent than yerba reuma, and have myself been surprised to see the success attending the use of the medicine locally; but though I have succeeded in making cures by its local use alone, I prefer the internal use of berberis with it, especially in those cases presenting a more marked, strumous diathesis.

We are frequently called upon to explain to a patient, the nature and cause of certain symptoms arising from some local trouble in the region of the nares, and across the root of the nose; and upon inquiry and examination we generally find more or less complication, and to tell our patient,

*The fluid extract may be substituted for the tincture, as more uniform and reliable.

simply, that it is a case of catarrh, does not satisfy. Almost every patient in this day understands that to mean some disease of the nares and that region of the air passages, but cannot account for the continued and persistent soreness in fauces and throat. Explain this to them, how the one may produce the other, or at least become the exciting cause, and as a rule they are more desirous to have treatment and more persevering in the use of remedies. My experience has been, that many cases have failed of a cure because the treatment adopted was not made with a view to the complication; that is, each disease was not treated specifically at the same time, and the patient, becoming tired of the protracted course of treatment, wearied of the delay and finally quit the use of remedies.

The skilful physician will make a thorough and critical examination of each case presented; and ascertain if there be any throat trouble, the nature and extent of the same, as well as its duration; and having ascertained its presence, try to impress on the mind of his patient the importance and the difficulty in the treatment of the catarrhal affection. In this way we can, not infrequently, get the confidence of our patients, and by judicious and skilful general and local treatment secure success, where, otherwise, failure would be the result. I do not wish it to be understood that in the treatment of these complications I use no other remedies than those named in the beginning of this article. Of course, I, as any other physician, adapt the means to the end in seeking to subdue the trouble I find in the throat, and while I am a firm believer in the superior alterative properties of berberis and penthorum, I nevertheless believe it all important in rational treatment of the local trouble of the throat, to use such local remedies as have heretofore proven serviceable in like affections; and, as I use yerba reuma locally in the treatment of nasal catarrh, perhaps it will not be amiss to report a case or two that recently came under my care for treatment; the patients, thinking they were troubled only with simple nasal catarrh, and for which they had each used remedies prescribed by other physicians without the least benefit.

Case 1.—J. H., æt. 24, of strumous diathesis, a teacher by profession, came to my office May 15th of the current year, to consult me in regard to her disease. On examination I diagnosed chronic catarrh of seven years standing, complicated with follicular disease of the air passages, embracing the entire fauces, epiglottis and larynx as far down as the vocal cords. This case, also, presented symptoms indicating an involvment of the bronchi in the inflammatory process by slight pain in the clavicular regions and along the superior portion of the sternum, and the sibilant breathing in that locality. On irrigating the nasal passages freely I succeeded in dislodging and removing quite a quantity of incrusted matter, muco-pus and dark grumous blood. These irrigations I made with the curved syringe postero anteriorly, using as a menstruum a weak solution of lukewarm salt water, and continued until the passage was freely open and the water colorless. I then prescribed:

℞ Ext. yerbæ reumæ fluidi, ʒ jss
Aquæ, ʒ jv.

M. One syringeful thrown postero-anteriorly into each nare and retained four or five minutes.

Also directed:

℞ Ext. yerbæ reumæ fluidi, ʒ ij
Aquæ, ʒ jv.

M. A teaspoonful to be injected into each nostril, morning, noon and evening every day for a week; and to take the following mixture internally:

℞ Ext. berberis aquifol. fluidi, ʒ ij
Glycerinæ, ʒ ij
Aquæ, ʒ ij.

M. A teaspoonful three times daily, before meals.

℞ Ether. sulph., ʒ j
Olei tiglii, ʒ j.

M., and apply over the throat and upper part of the breast to produce pustulation; and dismissed my patient for a week, it not being convenient for her to visit my office oftener than once a week.

This treatment was continued until the tenth of August, at which time no trace of catarrh was discoverable.

During the progress of the treatment for the catarrhal symptoms, I adopted the following plan of treatment for the laryngeal trouble; premising, that I offer nothing new in the local treatment, having followed closely in the footsteps of Prof. Horace Green, of N. Y. But I do claim that the general treatment I adopted in this and other cases has given better results than that recommended by Prof. Green. In this case I freely applied the nitrate of silver solution to all the diseased surface as it was discernible; and some minutes after, introduced the probang, freely charged with the solution, momentarily into the glottis. For this purpose I generally use the solution as recommended by Prof Green of the strength of gr. ix. to the ounce of water, though I frequently use a much stronger solution, 80 gr. to the ounce for cauterizing the fauces. The first few treatments generally produce considerable dyspnœa, but after a few applications that trouble seems to be overcome and the patient escapes the strangulation, especially if she is careful to fill the lungs with air before the application is made. I continued this treatment at each weekly visit of the patient until the tenth of August, at which time the case was discharged cured of both the catarrh and the complication. The local inflammation about the fauces entirely disappeared, the hoarseness subsided and the pains were relieved, the appetite good and the patient gaining flesh. How much of the cure to attribute to the agency of the berberis and penthorum may admit of controversy, but I am so well satisfied in my own mind, not only from the result in this case, but in many others, that I met with such success as I have not been able to obtain from any other agents that I have used, especially with the iodides and mercurials. I hope those having diseases of this character to treat, will give these drugs a fair trial both locally and constitutionally, and report their success.

The second case. Miss M. D, æt 28. Called at my office May 16th, the current year, to consult me in regard to a case of catarrh of twelve years' standing. On examination I found the symptoms and condition of the parts involved very similar to those in the case just described; though presenting to my view a severer type of both disease and the complication, inasmuch as, the parts diseased embraced a greater extent of tissue, and the disease in the throat was of a more highly inflammatory character; the mucous follicles of the posterior walls larger and of greater number, and the soft palate (velum) and glands thickly studded with hard and sharply pointed granulations, very highly inflamed, presenting a deep cherry red color. Other conditions indicating pathological change of the parts involved were present, but it is unnecessary to characterize them, as those named are sufficient for the purpose I have in view; only to say that the inflammation extended deep into bronchi, and the edges of the epiglottis being thickened and studded with small ulcers of a red and angry character. The treatment in this case was in every respect similar to that made use of in Case 1st. except, that in cauterizing the velum and fauces I used a solution of nitrate silver 80 gr. to the ounce of water, and used this three or four times before I attempted

to enter the glottis. In this case the hoarseness was neither so great nor so persistent as in the first case, though it presented to first view a much more aggravated form. In the treatment of the throat complication, as in idiopathic diseases of the same organs, I deem the external pustulation of the throat and upper part of the chest, "especially in the cervical region," by the croton oil of great importance, believing I have succeeded in establishing speedier cures than when I have treated cases without this adjucnt. This case progressed equally well with case first, and was discharged at the same time. I am satisfied, however, if I could have had my patients where I could have seen and treated them twice or thrice weekly, the cure would have been effected in a much shorter time; but living 8 or 9 miles away and a large stream intervening, I could not prevail on them to visit me oftener than once a week. I saw the father of one of the young ladies to-day, and he assured me she seems entirely cured, and expressed great gratification at the result, as he thought her in great danger from the fact that the family have a hereditary tendency to tubercular disease of the lungs.

Report from Hospital Practice.

1.

Report from Charity Hospital, Blackwell's Island, New York City (Therapeutic Gazette, June, 1881, p. 208): Yerba reuma was used as an injection in gonorrhœa in five cases. In no case did it cut short the disease, but it lessened its severity, diminishing both pain on micturition, and the amount of discharge. Its use was attended with no complications. Was used in solution.

Liquid Ergot, Normal.

(PREVIOUSLY KNOWN AS LIQUOR ERGOTÆ PURIFICATUS.)

Physicians have long felt the want of a reliable preparation of ergot, which should be free from the serious drawbacks so largely met with in the preparations offered under the guise of extracts, ergotines and fluid extracts.

Many of these preparations contain deleterious ingredients, which exert a disturbing and dangerous influence in the frequently grave emergencies where ergot is resorted to. Others, again, have features objectionable in either requiring some previous preparation to fit them for administration, or are not possessed of needed keeping qualities, tending to deterioration in time, or to become unsightly on standing. Inferior material and defective methods are largely responsible for this misrepresentation of a really excellent drug.

With a desire to supply the want referred to a series of experiments were undertaken to decide upon a method of extraction, which should be selective in its character, so that all the desirable properties of the drug should be represented in the preparation, to the exclusion of those which produce dangerous and unwished-for results.

Chemical analysis and physiological experimentation were laid under contribution to bring about this result, so that we could offer a tried remedy, with the consciousness of having exerted our best efforts towards lightening the labors of the physician, and placing in his hands a worthy weapon in combating disease.

The result was our *Liquor Ergotæ Purificatus* which was characterized by uniformity of ingredients, constancy of strength, and freedom from those properties which are exerted solely in disturbing the healthy functions, without a corresponding beneficial result.

Liquid Ergot, Normal, which under this title, originated the establishment of our line of Normal Liquids, and upon the popularity of which this new issue is promoted, undergoes no alteration in process of manufacture or price. The change is confined to the style of package which will hereafter conform to the distinctive characteristics distinguishing this class of our remedies.

This will be found a faithful representative of all the desirable properties of ergot, which tend to accelerate labor and assist nature's protracted efforts, while it is superior in its application to the other uses of this drug.

Our method of preparation in its general features consists, first, in determining the value and constituents of the very best obtainable fresh ergot, selected from a large number of samples.

Having once ascertained the maximum value, and adopted this as a standard, each succeeding parcel of our "Liquid Ergot, Normal" is made to conform to this strength, so that the active principles of sixteen Troy ounces of such standard ergot would be represented by sixteen fluidounces of our finished preparation.

The constituents of ergot presented in this preparation are: ecbolin, ergotin, scleromucin, sclerotic and ergotic acids, with others of minor value, such as sclererythrin (the red coloring matter), etc.

We have rejected those principles which long experience has demonstrated to provoke undesirable action, such as resin and fixed oil, alcoholic extractive, with cholesterin and ergotinina, to the latter of which has been assigned, with good cause, an unenviable reputation as a disturbing and even poisonous agent.

We desire to lay particular stress on the value of this liquid for administration hypodermically. As this method of medication can be depended on to produce much speedier results than by the mouth, it is a desideratum which has been borne in view to furnish in this an ever ready, concentrated and non-irritant preparation.

We would urge physicians to give it a trial, take advantage of the improvements which scientific methods have placed at their disposal, and avoid the disappointment inevitably resulting from the employment of unskillfully prepared extracts of indeterminate strength.

When prescribing Ergot, specify **Parke, Davis & Co.'s "Liquid Ergot, Normal."**

☞ A "Working Bulletin" containing more detailed information concerning Liquid Ergot, Normal, together with numerous clinical reports, will be sent gratuitously to any member of the medical profession on application.

PARKE, DAVIS & CO.,

Manufacturing Chemists,

DETROIT, MICH., AND NEW YORK CITY, U. S. A.

Notes on Normal Liquids.

Normal Liquids are fluid extracts prepared from carefully selected drugs and adjusted in strength by assay to a certain fixed standard. Drugs whose activity depends on an alkaloidal principle are notoriously variable in strength. The ordinary fluid extract must share in this variability, but in our Normal Liquids this grave defect is remedied, and absolute uniformity in therapeutic effects may be confidently expected from them. One cubic centimetre of the normal liquid represents one gramme of a drug of standard strength.

Liquor Ergot, Normal, which, under the title of *Liquor Ergotæ Purificatus*, originated the establishment of our line of Normal Liquids, and upon the popularity of which this new issue is promoted, undergoes no alteration in process of manufacture or price. The change is confined to the style of package, which will hereafter conform to the distinctive characteristics distinguishing this class of remedies.

Send for circular on Normal Liquids.

WORKING BULLETIN

FOR THE SCIENTIFIC INVESTIGATION OF

STIGMATA OF MAIZE.

(CORN SILK.)

A Plan to Promote Progress in the Science of Pharmacology.

This working bulletin, accompanied by the drug to be investigated, or a preparation of the same, or both, as the circumstances require, is distributed gratuitously to the Colleges, Universities and other institutions engaged in scientific work, and to the government hospitals and public hospitals and dispensaries, and to the medical profession at large, to obtain the results of the drug in treating the sick.

The object is to promote original investigation in the science of drugs. This we propose to do by furnishing gratuitously to those engaged in original research, material for investigation, and by publishing the results of the same as a donation to scientific literature. It is apparent that the only return which we can receive for this work is the increased demand for the valuable drugs which we are introducing to science, for we guarantee to publish full reports, favorable or otherwise.

Articles in relation to the drug, under the following heads embraced by the pharmacology, are requested for the THERAPEUTIC GAZETTE, the organ which represents this new system of work. These heads form the classification of this bulletin. In regard to each drug investigated we solicit reports for publication upon the subjects of scientific name; synonyms; definition; natural order; botanical origin; history; commerce; production; cultivation; description; microscopical structure chemical composition; uses (in medicine); adulterations and substitutions pharmaceutical preparations and dose; antagonists and incompatibles; synergists; physiological action; therapeutic properties; toxicology and antidotes.

At the end of the year the reports published in the GAZETTE will be collected, classified and published in the form of an ANNUAL REPORT, which will be donated to the libraries of the Smithsonian Institute, a government institute at Washington for the free diffusion of knowledge; and a sample of the drug, and our preparation of it, will be deposited in the National Museum, in the department delegated to pharmacology.

SENT OUT BY

THE SCIENTIFIC DEPARTMENT OF

PARKE, DAVIS & CO.,

Manufacturing Chemists,

Detroit, Mich., U. S. A.

STIGMATA OF MAIZE.

Synonyms—Corn Silk, Stigmata Maidis.
Part Employed—The Green Pistils.
Natural Order—Gramineæ.
Habitat—Cultivated everywhere.

Physiological Action and Chemical Composition. From the United States Dispensatory, 15th Ed., p. 1506, note: Attention has been called by Prof. Castan, of Montpelier, to the diuretic properties of the *Stigmata of Maize.* Although testimony to the contrary has been given, the evidence is so strong as to demand further trial. The stigmata or silk should be taken when the tassel has well shed its pollen. It is said to yield 20 to 30 per cent. of watery extract, of which half a drachm or more may be given daily in dropsy. Dr. Vauthier affirms that the active principle is *maizenic acid* and that the remedy is especially valuable in uric or phosphatic gravel.

THERAPEUTIC PROPERTIES.

Reports from Private Practice.

1.

Report (translated) from the Journal de Therapeutique. (Therapeutic Gazette, 1881, p. 135): M. Castan, Professor in the Faculty of Medicine of Montpelier: Lately there has been much excitement regarding this supposed new remedy. He himself had long known of its efficacy, having used the infusion in many cases of gravel, and had produced great relief in nephritic colic. He gives four and five cups full of the infusion each day.

As to the mode of relief it is difficult to explain, and he thinks it less a diuretic than a local anodyne.

M. Deunée, of Bordeaux, said likewise that the use of this remedy was not new. He had been using it with others in Bordeaux for ten years. In Mexico it had been used by the natives for a long time in nephritic colic, in vesical catarrh, and generally it was beneficial in all diseases of mucous surfaces.

M. Pous, of Nerac, stated the same as to his locality, to which others agreed as to its long and beneficial employment.

2.

Report from Dr. Busey in New York Medical Record (Therapeutic Gazette, 1881, p. 394): In the January number of the Medical News and Abstract appeared a synopsis of a paper by Dr. Dufau, entitled "The Stigma of Maize in Diseases of the Bladder," in which the value of this new drug in the treatment of cystitis, gravel, and other affections of the bladder was so highly extolled that I determined to give it a fair trial; but failing to secure either of the preparations recommended the attempt was not made until late in February, 1881. Subsequently to the above publication, Dr. Vaulthier communicated, in the August number of the Archives Med. Belges., the favorable results of his experience with the same drug in the treatment of "all the affections of the bladder, whether recent or chronic."

My first trial of the drug was in the following case of pyelitis: The gentleman had during the two preceding years several attacks of renal colic. The last attack occurred in September, 1880, and was followed by continuous and increasing ill-health, the symptoms of which referred to some disturbance of the genito-urinary apparatus, but were indefinite. He occasionally sought medical advice, but did not submit to regular and systematic treatment until the latter part of October. The progress of the case is fully exhibited by the various analyses of the urine, by Dr. G. N. Acker, which will be given in the order of date.

"October 19, 1880.—Sp. grav., 1015; reaction acid; albumen, small quantity; sediment heavy and white; numerous leucocytes; few red blood-corpuscles; epithelium from kidneys, tubes, and pelvis few from bladder; no casts or crystals."

From the above date he was under constant observation and treatment, but attended regularly to his business, which was laborious and active. There was no improvement. The second analysis shows a marked aggravation of the disease.

Analysis. December 7, 1880.—Sp. grav., 1015; reaction, neutral; albumen, one-eighth; numerous leucocytes, some with large nuclei; young epithelial cells; some red blood-corpuscles; epithelium from pelvis of kidney, ureters and bladder; no casts.

After this date he was treated with tannic acid, after the method of Traube, with rectal suppositories of opium and belladonna to allay pain and frequency of micturition, which deprived him of the necessary sleep. His diet was regulated, and though permitted to go daily to his place of business, he was admonished that exercise was detrimental.

Analysis, February 5, 1881.—Sp. grav., 1017; reaction, acid; albumen, one-eight; sediment, heavy, white; not much coloring matter; sediment composed of leucocytes, urethral, pelvic, and bladder epithelium; a few red blood-corpuscles."

Two months' treatment with tannic acid had failed to produce any beneficial effect; in fact, the analysis indicates a less favorable condition. The amount of sediment had increased. The acid treatment was continued, and an infusion in wineglassful doses every four hours of uva ursi one ounce and lupulin one-half ounce to the pint of water, was added. On the night of February 17th he had a copious hemorrhage. The next day he was ordered to bed. Treatment suspended. I had determined to try the stigma of maize, and was awaiting its arrival.

"Analysis, February 21, 1881.—Color, light yellow: sp. grav., 1020; reaction, acid; albumen, large quantity; phosphates and chlorides, normal; heavy white sediment; leucocytes, in large quantity; some red blood-corpuscles; large amount of vesical, urethral, and pelvic epithelium."

On February 22d the treatment with the fluid extract of the stigma of maize was commenced, at first in doses of one drachm every six hours, then four hours, and, finally, after several days' use without any observable effect, every two hours. The quantity of urine increased and ran up to sixty-four ounces a day. The amount of sediment diminished, and micturition became less frequent. The following analysis shows a marked improvement:

"Analysis, March 8, 1881.—Sp. grav.. 1020; reaction, acid; albumen, small quantity; chlorides, diminished; phosphates, normal; sediment, one-tenth; numerous leucocytes, very few red blood-corpuscles, epithelium from pelvis of kidneys and bladder diminished, crystals of uric acid, oxalate of lime, and triple-phosphates."

With occasional variations in the frequency of the dose of the maize, the treatment was continued. The interval between the doses was increased when the amount of urine passed was excessive.

"*Analysis*, April 4, 1881.—Sp. grav., 1015; reaction, acid; albumen, small quantity; urates, small quantity; phosphates, normal; few leucocytes, very few red blood-corpuscles, epithelium from pelvis of kidney and bladder greatly diminished. In an eight ounce vial of pale yellow urine the white sediment barely covered the bottom of the bottle."

The decided improvement since the 22d of February may have been due as much to the rest in bed as to the stigma of maize. He appeared so nearly well that I allowed him to leave his bed and sit up on the 8th of April, and for several days he continued to improve. On Thursday, 14th inst., he complained of intense pain immediately preceding defecation, deeply seated in the perineum, which he ascribes to "the piles." The pain was continuous when in the sitting posture. Micturition was very frequent and accompanied with a scalding sensation along the course of the urethra, which continued, gradually subsiding, for about ten minutes after each evacuation of the bladder. A rectal examination disclosed an acute prostatitis. He was again put to bed. Leeches were applied to the perineum, followed by hot fomentations and a hot sitz-bath morning and night. At this date, April 20th, he seems to be doing well. The urine remained unchanged, apparently, from the analysis of the 4th inst. During the entire course of the disease his bowels had been kept in a laxative condition, sometimes employing alkaline waters, at other times the formula known as Chelsea Pensioner.

A few days after the hemorrhage on the night of February 17th, he was seized with orchitis attacking the right testicle, and there remains, even yet, sufficient evidence of its effect to mar the symmetry of these organs.

The second case in which the drug was employed occurred in a lady suffering with cancer of uterus. The vesical irritation and tenesmus were so constant that the poor patient could not sleep, notwithstanding the large doses of morphia which were taken at regular intervals to relieve pain. Her urine was densely loaded with mucus and pus. She was entirely relieved after several days' use of the fluid extract. Previous to its administration I had tried various remedies which I had been accustomed to use in such cases, without any lasting effect.

The third case was a lady who, for a year previous, had suffered with vesical irritation and frequent micturition. The analysis of her urine exhibited the following condition:

"Sp. grav., 1027; reaction, very acid; albumen, small quantity; color, yellow; sediment, red in color; urates, increased; numerous leucocytes; numerous uric acid crystals; bladder epithelium in large quantity."

She was entirely relieved, and continued well for about a month, when there was slight return of the symptoms. The medicine was resumed.

Case fourth occurred in a young lady who, for several years, had suffered from frequent and painful micturition. The pain was sometimes so intense as to cause her to scream.

"*Analysis of Urine.*—Color, straw, clear; sp. grav., 1037; reaction, very acid; albumen, none; urates, increased; sediment, composed of urates, mucus and epithelium, urate and oxalate of lime crystals; vaginal and bladder epithelium in large quantities; mucus."

She was greatly improved after a moderate use of the drug, and, probably would have been entirely cured if the treatment had been continued. But, as so frequently happens with young girls, as soon as the intense suffering was relieved, the treatment was abandoned. She is again under treatment.

The foregoing cases were all under treatment at the time of obtaining the drug, but with intermitting and partial success. Since, the two following cases have been treated with the same drug:

One was a lady who had suffered for an indefinite time with subinvolution of the uterus, metrorrhagia, and laceration of the cervix. She represented that the desire to "pass water" was so frequent during the sleeping hours that it was impossible to secure a quiet night's rest. Her statement was that the night previous to my first visit she had been compelled to get up every half hour, passing at each time a very small quantity. She was entirely relieved. A week afterwards there was a slight return, which yielded again to a few doses.

The second case was a lady, who stated that she had suffered for two years with "congestion of the right ovary," and had been treated for that affection by various external lotions, and the internal administration of anodynes. I failed to recognize any enlargement or tenderness of the ovary, but did discover a retroflexion of the womb. She described a pain which recurred every night after having retired, accompanied with a desire to evacuate her bladder. The pain was felt along the course of the right ureter. She was compelled to empty her bladder every hour during the night, but not so often during the day. In this case the relief was not so prompt as in the preceding, but there was a gradual abatement of the vesical irritation and frequency of micturition. In addition to the use of stigma of maize, the womb was adjusted, and retained in position by pledgets of absorbent cotton, saturated with carbolized glycerine.

All these cases exhibited the beneficial effects of the drug, but I am not prepared to assert its curative influence with the confidence of Dufau and Vaulthier. It is a certain but mild diuretic, when given in full doses at short intervals.

3.

Report from L. W. Hansen, M. D., Northfield, Vt. (Therapeutic Gazette, 1881, p. 51.) Noticing in the Michigan Medical News of August 10th, the stigmata of maize recommended very highly in chronic inflammation of the bladder, I determined to try it in the case of my father-in-law, who has suffered many years from that distressing disease, and was suffering from it severely at that time, passing urine with great pain, heavily loaded with mucus, two or three times per hour, both day and night. An existing hæmorrhoidal trouble was greatly aggravated by the constant straining of urination. I made a decoction of the green silk from the sweet corn growing in the garden, administering a wineglassful every three hours, using no other medication except a laxative as needed to regulate the bowels. In ten days he was completely relieved, passing urine only once in five or six hours, and completely free from mucus, and he has had no return of the trouble to this date, a period of nearly four months. He says he has not been so well for twelve years. The case is regarded as being little less than marvelous by those who knew him.

4.

Report from S. A. Butterfield, M. D., Indianapolis, Ind. (Therapeutic Gazette, 1881, p. 89): *Stigmata of Maize.*—I have also tested this article. In one case in particular, a lady æt. 59, had had for several months frequent attacks of diminished or suppressed secretion of urine with painful micturition. For a time digitalis gave prompt relief and when it finally failed, its combination with sodium

bicarb. would rouse the dormant kidneys, but after a few times this also failed. The pain in the loins clearly indicated renal congestion so that stimulating diuretics were out of the question. I had an intelligent druggist prepare a syrup of three ounces stigmata of maize to a pint of syrup and of this I gave a teaspoonful three times a day. Three or four doses were sufficient to produce a copious flow or urine entirely free from pain or burning.

My experience so far, leads me to regard the drug as one of our best diuretics, combining also properties which make it valuable in vesical or urethral catarrh.

5.

Report from London Medical Record (Therapeutic Gazette, 1881, p. 159.) As the stigmata of maize are a very recent and as yet but little known addition to the materia medica, the following resumé of the conclusions reached by Dr. Dufau, both from personal observation and from the reports of others, will undoubtedly prove interesting:

1. The stigmata of maize have a very marked, though not always a favorable, action in all affections of the bladder, whether acute or chronic.

2. In acute traumatic cystitis, and also in gonorrhœal cystitis, they have a very marked diuretic action, but, at the same time, increase the pain; hence they should not be employed in these cases.

3. The best results have been obtained in cases of uric or phosphatic gravel, of chronic cystitis, whether simple or consecutive to gravel, and of mucous or muco-purulent catarrh. All the symptoms of the disease, the vesical pains, the dysuria, the excretion of sand, the ammoniacal odor, etc., rapidly disappear under the influence of the medicine.

4. The retention of urine dependent on these various affections often disappears as improvement progresses, but the use of the sound must sometimes be continued, in order to empty the bladder completely.

5. The stigmata of maize have very often produced a cure after all the usual internal remedies had been tried in vain, or with only partial success. In other cases, the ordinary methods of treatment, which had at first proved more or less entirely useless, became efficacious after the stigmata had been administered for a time, and had, as it were, broken the ground for them. Most frequently the stigmata alone sufficed for the cure, but still in some cases the effect was incomplete, and it was found that the treatment could be varied with benefit. Injections and irrigations of the bladder also proved useful adjuncts to the maize.

6. As the stigmata of maize are a very powerful, though at the same time entirely inoffensive diuretic, they have also been employed with the best results in cases of heart-disease, albuminuria, and other affections requiring diuretics. Cases have been reported in which the urinary secretion was tripled and even quintupled in the first twenty-four hours, and others where the exhibition of the drug was continued for two or three months without the slighest untoward effect.

7. The best preparations of the stigmata are the extract and a syrup made from it. The decoction is unreliable and uncertain. The syrup, the usual dose of which is two or three teaspoonfuls per diem, must be largely diluted, and for this purpose either hot or cold water, or a decoction of the stigmata, may be used. The taste of the mixture is very agreeable. It should be given fasting.

6.

Report from the Louisville Medical News. (Therapeutic Gazette, 1880, p. 340.): We copy from the London Practitioner's translation from the Progrès Medicale the following on corn-silk as a diuretic:

It is hardly a year since this remedy was first introduced into the ordinary routine of practice, and yet it may not be uninteresting to make an abstract of some of the papers which have been published in regard to it. Professor Castan, at the Montpellier meeting, called attention to the stigmata of maize as a remedy which he had long known, and which he had found to be of great use in gravel and nephritic colic. In the latter disease there ensued after the administration of the drug a marked decrease in the painful symptoms, and he therefore supposed that the stigmata acted less as a diuretic than as a local anæsthetic. Professor Denucé, of Bordeaux, obtained the most favorable results from its use in vesical catarrh, in which it appears to possess an elective action on the mucous membrane of the bladder. Dr. Pons, of Nérac, and Dr. Queirel, of Marseilles, had also frequently employed the stigmata of maize. M. Queirel observed that the pain was greatly alleviated in nephritic colic after the use of the remedy, but the urine was at the same time markedly increased in quantity. At the Therapeutic Society M. Constantin Paul stated that he was not convinced of the diuretic properties of the stigmata, although one of his colleagues had obtained some very striking results, the quantity of urine being in one case of dropsy increased from five to fifteen hundred grams after the ingestion of three spoonfuls of the syrup. Dr. Landrieux has arrived at the following conclusions, based on a considerable number of observations: 1. The various preparations of the stigmata of maize are of use in modifying the secretion of the urinary tract. They may also be considered to possess a distinctly diuretic action. 2. Diuresis is rapidly produced, and the increase of urine is very marked after three or four days. 3. The diuretic effects are observed not only in diseases of the organs concerned in the urinary secretion, but also in the affections of the vascular system (diseases of the heart, blood-vessels, etc.) 4. The pulse is regular, the arterial tension is increased, while the venous pressure is diminished. 5. The remedy produces no disturbance of the nervous or digestive systems. The tolerance of the drug is complete and absolute, while in chronic cases its administration may be contidued for three to six months without inconvenience. The different results which the use of the stigmata of maize has given at the hands of different observers appear to be due in a large measure to the fact that the strength of the extract varies according to the nature of the soil, to the climate, to the time, to the mode of picking, and to the manner of drying the stigmata. The formula for the preparation of the syrup is not yet fixed, since the quantity of the active principle varies in different samples of the stigmata. The Pharmaceutical Union adopts formulæ which contain in one case six, and in another twelve grains of extract to the kilogram of syrup. The latter receipt is based on the assumption of a strength of 12 per cent. This quantity appears, however, to be too small, since the best samples of stigmata yield 25 to 30 per cent of extract, or on an average 27.5 per cent. The kilogram of syrup will therefore contain 27.5 grams with this strength (27.5 pro mille.) The daily dose of the syrup will be two to four spoonfuls, representing about one to two grains of the extract. In all cases the syrup should be employed in preference to an infusion of the stigmata of maize.

7.

Report from the Medical Press and Circular. (Therapeutic Gazette, 1880, p. 341.) A Paris correspondent writes: The stigma of maize seems to gain partisans in this country. Its diuretic properties are being much experimented upon, giving, as usual, contradictory results. This new remedy was brought under the notice of the profession about six months ago, by Dr. Bafaud, who, practicing in the Landes, observed that peasants freely used an in-

fusion of the stigmata for attacks of gravel. But it appears that in Mexico the colonists used it in vesical catarrh from time immemorial. Recently the French medical press have received numerous communications upon the stigmata of maize, and many articles have been published, the last of which is from Dr. Landrieux, who cites two cases in proof of its diuretic properties—the first that of an individual attacked with ascites consequent on cirrhosis. Under the influence of the drug, given in the form of syrup, the quantity of the urine arose progressively and rapidly from five hundred grams to twelve hundred and fifteen hundred grams. On continuing this treatment for about three weeks all ascites disappeared. The other case was that of a woman, æt. 68, the subject of heart-disease. There was a considerable œdema of the lower extremities, enormous ascites, pulmonary congestion, renal congestion, causing a considerable diminution of the urinary excretion. The stigma of maize was administered with the result of increasing the quantity of urine from two hundred to eight hundred grams in twenty-four hours. The œdema and ascites disappeared in a short time. Dr. Landrieux terminates his article with the following conclusions:

1. Not only are the different preparations of the stigmata of maize useful as modifying agents of the urine, but these same preparations can be equally considered as incontestable diuretics.
2. Diuresis is rapidly produced.
3. The pulse becomes regular under its influence, the arterial tension increases, while that of the veins diminishes.
4. Complete tolerance of the drug, and in chronic cases the treatment might be continued during a month or six weeks without the slightest inconvenience.

A discussion on the effects of the drug took place lately at Montpellier. M. Castan, Professor at the Faculty of Montpellier, believed it acted less as a diuretic than an *anesthétique local*, while M. Deuncé, of Bordeaux, thought it had an action *élective* on the mucous membrane of the bladder, but all agreed that it eased the pain in renal colic. At all events it is worthy a trial, being cheap and easily procured. The dose would be eight grams for a pint infusion, to be taken *ad libitum*.

8.

Report from El Medico (Therapeutic Gazette, 1880, p. 357): We have alluded to the good effects of this new remedy on former occasions, but at the present time would call the attention of the profession to the results of the last experiments. In the Congress of Montpellier, Senor Castan called attention to this medicine, which has been often tried and beneficially in nephritic colic. He had observed a speedy diminution of pain, and has attributed it more to this drug as a local anæsthetic than as a direct diuretic. Senor Denuca, of Bordeaux, has obtained excellent results in vesical catarrh, which he considered due to its peculiar action on the mucous membrane of the organs involved. Doctors Pous, Nerac, Quieral and Marcella, also observed its sedative effects, without increasing the volume of the urine. Drs. Paul and Landrieux also have witnessed the good effects of this drug, but insisted that the amount of urine passed was greatly increased. In one notable case of cirrhosis the urine increased from 500 grammes to 800, 1200 and 1500 grammes. In a woman of 68 years of age, with dropsy, with enormous swelling of the inferior extremities and enormous ascites, pulmonary congestion, and a large amount of albumen in the urine, the stigmata produced in twenty-four hours a flow of urine from 200 to 500, and afterwards 800 grammes. With the disappearance of the swollen extremities and ascites, the albumen was also lessened and the increasing debility of the system stopped. Before the use of this remedy, tonics and digitalis had been tried, but the latter produced tonic effects, and on diuretic action the conclusion of Dr. Landrieux are as follows:

1. The different preparations of stigmata of maize, not only modify the secretions of the kidneys, but cause a direct diuretic action.
2. This diuretic action is rapid, and in three or four days, is very evident.
3. These diuretic results not only relieve the debilitated kidneys, but lessen the action of the heart, and tones it.
4. The pulse becomes regular, and the arterial tension stronger.
5. The medicine produces no disturbing effects on the nervous system or the digestive organs.
6. The tolerance of this drug is complete, and absolute, and its administration in chronic debilitated cases can be continued for four or six weeks.

It appears then, said Dr. Dasseum, that the experimenters have varied as to the diuretic effect of this remedy, and he must attribute it to the variable amount of the extract in a certain quantity, which may be owing to the condition of the soil, wet or dry, the climate, the time of gathering and the mode of drying, which can vary the amount from eight to thirty parts in every hundred. In regard to the syrups, he had found great variations, one sample being twice as strong as the other, judging from the effects.

9.

Report from Revista de Madrid, (Therapeutic Gazette, 1880, p. 359): The Cronica Medica of Valencia de Jimeno, has some observations on this plant, first made known by Dr. Bertherand, in 1878. It has proved beneficial in vesical catarrh, dysuria, cystitis and uric lithiasis, producing discharges of small calculi. It is a sedative in nephritic colic and inoffensive in use. He first tried it in a case of renal lithiasis of two years' standing, accompanied with nephritic colic and hematuria and expulsion of red sandy particles. In other similar cases it has also acted well, and even with surprising results in our hands.

10.

Report from Dr. Dassum—L'Union Médicale—Chicago Medical Journal and Examiner (Therapeutic Gazette, 1880, p. 370): Since the first article published in this journal (L'Union Médicale) numerous observations have been published which clearly show the value of this article in some of the affections of the bladder. We extract the following from the published reports:

Report of Dr. Dezotteaux.—Retention of urine by a man of 70 years. The catheter was used the first evening and the following; the syrup of the stigma of maize, given in teaspoonful doses every four hours, and the next morning the urine passed normally. The syrup was continued for some days and cure was complete.

Ibid. Cystitis, dysuria. Urine ammoniacal in a man 58 years. Three doses of the syrup produced a marked improvement, and eight days effected complete relief.

Report of Dr. Lamy: Retention of urine dating ten years in a man of 78, who was accustomed to catheterize himself. One evening after a full supper, he could not pass the sound, and finding himself bleeding considerably, Dr. Lamy was called, who succeeded, after great difficulty in withdrawing the urine. For fifteen days the urine was withdrawn by means of the catheter. It had a strong ammoniacal odor, and exhibited morbid deposits. The bladder was washed with carbolized solution every day. Alkaline drinks were administered and inunctions of belladonna and gelsemium practiced, but all without result. The infusion* of the cornstalk was

*Fifteen grammes in 500 c. c. of water during the day.

then administered. From the second day the urine was passed normally and the infusion having been continued for a few days, the retention of ten years disappeared.

Ibid. Retention of urine for twenty years in a man of 83, who had used the catheter daily. In using the catheter, violent tenesmus occurred and blood followed. Dr. L. administered the infusion of stigma of maize, and after the third dose the tenesmus ceased. During the night the urine was passed, quite colored with blood. The next day the blood had disappeared, and permanent relief followed.

Report of Dr. André: A man, 42 years, has suffered ten years from chronic cystitis, a sequel of gleet. During this time he has complained of pains in the lower part of the abdomen, and burning sensations when passing water, and a bearing down sensation of the rectum and perineum. The urine deposited mucus and uric acid. During the last three years there had existed a constant and imperative desire to urinate. The urine soon became ammoniacal, and finally it passed involuntarily. The classic treatment employed during the ten years was without result. The syrup in question was administered; no other medication. Eight days after, he went to the doctor's office completely relieved.

Dr. Dassum adds that the best mode of administering it, is in the form of syrup made from the extract; three tablespoonfuls during the day in water. The syrup represents twenty-seven grammes of the extract to the litre.

The value of the silk seems to differ according to the way in which it has been collected or dried.

11.

Report from J. F. Goldman, M. D., Huntsville, Ala. (In the Therapeutic Gazette, 1882, page 15): This drug, I am happy to say, has filled all the promises made for it by its introducers, and even more. I had on hand a bad case of typhoid pneumonia which progressed well till the patient (a girl 11 years old) took cold, and had a relapse, and I was sent for at two o'clock in the morning. Was told by the messenger that she was worse—complained of her back and lungs—had shortness of breath and a continual hacking cough. The drug stores were all closed, and I was deeply perplexed as to what to do. The patient having had trouble with her kidneys, I thought of the corn silk, a sample of which I had in my office. I hastily poured out an ounce bottle full of the fluid extract, and for the hacking cough added a few drops of a solution of morphia. Arriving at the bedside of the patient, I found her gasping for breath, fever high, coughing incessantly. The case looked hopeless, and, to be candid, I gave her a teaspoonful of the medicine more as a placebo, than with any hope of relief, yet in all my practice I was never more astonished at results. In fifteen minutes, or less time, the breathing was easy, her cough had ceased, and the patient dropped into a quiet sleep. She recovered, and is now well, to my delighted astonishment. I have since tried the drug in somewhat similar cases, with good results. Let it be thoroughly tried in pneumonia, and where there is difficulty in breathing.

But I have as good, or even better things to write of this medicine. I have a lady patient, 73 years old, of rheumatic diathesis, and now confined to her room, and mostly to her bed, with consumption. She has had heart trouble for years, and, as is generally conceded, the rheumatic diathesis predisposes to angina pectoris, and pericarditis. This patient has just recovered from an attack of the latter disease, during which she was threatened with the former. There was not wanting a single prominent symptom of the disease. She having had kidney trouble, and as the corn silk is recommended, for both kidney and heart troubles, I prescribed in this case drachm doses of the fluid extract three times per day and with the most happy results. Inflammation of the pericardium passed away, heart disturbances ceased, smothering spells were relieved, and urine became normal. Patient doing well.

12.

Report from W. B. Carson, M. D., in Physio-Medical Journal, January, 1882. I have found stigmata of maize to act kindly and certainly as a diuretic. I have not at this date determined just in what conditions it is most indicated, except in suppressed urine. It has given prompt relief in the numerous cases among old or elderly women, less among the young, denominated gravel where there is scant and scalding urine; and I also used it in several cases of typhoid and other low fevers where a diuretic was indicated. I have used P., D. & Co.'s fluid extract, also an infusion of stigmata gathered by myself. Another thing, it is not in the least objectionable to the taste.

13.

Report from T. M. Wright, M. D., Bellefontaine, Ohio, in the Therapeutic Gazette, 1882, p. 50: The well known suppression of the urinary secretion, as well as the inhibition wrought upon the contractility of the organic muscles, consequent upon the prolonged exhibition of opiates, are often serious difficulties in the treatment of grave diseases.

In a recent case of prolonged and dangerous dysentery, the employment of the opiates greatly diminished the secretion of urine, and also interfered with the expulsion from the bladder of what was actually present. In this predicament of my patient—a young lady—I found the stigmata of maize to answer an excellent purpose. The fluid extract (P., D. & Co.'s) was administered in drachm doses every six hours. After 12 or 15 hours the unpleasant complication entirely disappeared, although the urgency of the primary disease forbade any intermission of the opium treatment. The medicine promises to be of great value in all such cases.

14.

Report from Sampson Pope, M. D., Newberry, C. H., S. C., in the Therapeutic Gazette, 1882, p. 207: About four months ago Hart Caldwell, a negro, about 42 years of age, applied to me for treatment. He was suffering from what he termed gravel. Upon examination I found that he had pain in the back, hips, and posterior part of the thighs, difficult and painful micturition, the stream of water small and sometimes interrupted. The pains were at times excruciating, at others not so severe, but at no time was there an entire absence of pain. I did not sound him for stone, for which I am now very sorry. I placed him upon the usual remedies, buchu, hydrangea, mistletoe, etc., but without avail. After two or three weeks there was placed in my hands a sample of stigmata of maize, and I determined to give it a trial. I placed him upon the following prescription:

℞ Fl. ext. stigmata of maize
Gin., ää ℥ j.

M. Sig. Teaspoonful three times a day.

The patient commenced improving and is now entirely well. He had only to repeat the prescription once. After taking the remedy for a few days he commenced passing particles of a calculus, and continued to do so for several days. Since that time I have prescribed the same remedy for a boy 6 years old, with a like result, and I now believe that the stigmata of maize possesses the power of dissolving calculi, certainly the softer kinds. Should another case present itself I shall prove it by sounding and ascertaining the presence of stone before using the remedy.

15.

Report from E. A. Anderson, M. D., Wilmington, N. C., in Therapeutic Gazette, 1882, p. 379: I have used the fluid extract of stigmata maidis in a case of irritable bladder which had resisted belladonna and all other remedies usually recommended in this condition. The patient was obliged to void his urine every half hour at most, and was unable to leave his house because of the difficulty. In four days after the use of the corn silk was begun, his condition was ameliorated, and he was soon able to retain his urine to normal distension of the bladder.

Reports from Hospital Practice.

1.

Report from F. E. Stewart, M. D., Ph. G., of the Southern Hospital of the City of Philadelphia, in Therapeutic Gazette, March, 1883, page 93. The following case, taken from the case-book of the hospital, seems to furnish marked evidence of the diuretic properties of the fluid extract of corn silk:

Mr. J. W., æt. 77, white; born in Scotland. Has been a sailor since 1815, serving much of the time in the United States navy. His constitution and general health have always been good, and he has no hereditary predisposition to disease that he is aware of. His habits and mode of life have been those characteristic of his profession—exposure to wind and weather, frequently wet to the skin, obliged to endure hardship and exposure. For many years he has been in the habit of taking his daily allowance of grog, and of late years the habit of using stimulants has grown upon him until he consumes about a pint of whisky in the twenty-four hours. Previous to his present complaint he has suffered with yellow fever, having had an attack of this disease in 1841, when in South America. Seven years ago he was under treatment for a bad diarrhœa. The complaint for which he now comes to us is a bloody diarrhœa. About two months ago he had an attack of diarrhœa, but his stools were not attended with blood. The discharges at this time were slimy. After running on for some time, it was finally checked by astringents. Two weeks ago the diarrhœa returned, and this time he noticed that the stools were bloody. The blood is black and tarry, and mixed with a slimy offensive discharge of fecal matter. He has passed as much as a gill of blood at one time. In addition he is troubled with dyspeptic symptoms. His stomach is sour, and he has acid eructations, tympanitis and belching of wind and vomiting of food.

Although not confined to his bed he is very weak, and his general health seems to be failing rapidly. He says that last summer he was suddenly taken sick in the street, became weak in the knees, and that since then he has been unable to walk but little. Owing to the loss of his sight by disease, he has been pensioned by the government. There is no syphilis to be found in his history. He has had gonorrhœa.

At the present time he presents the following appearance: He is pale, his features pinched, and he complains of a severe pain in his back. This pain has troubled him for about three months, and is very severe. His appetite is poor. He is thirsty, and drinks a great deal of water, whisky and porter. As for the bowels, he has two stools daily, diarrhœic and with more or less blood. The kidneys refuse to perform their function with normal vigor. The urine is scanty, high colored, and loaded with urates. As for the amount of urine, he passes about six ounces daily. It has an alkaline reaction; s. g. 1.025; no albumen, but shows a trace of sugar. Some years ago he had piles, but they have not troubled him since.

By a physical examination we find that his heart is weak; his lungs are resonant; the abdomen is distended with wind, making it difficult to examine the organs contained therein. The liver dullness, however, occupies less than the normal space.

Cirrhosis of the kidney will account for the symptoms, and on this diagnosis the treatment has been based.

Treatment.—This has been directed toward the symptoms. In the first place, he has been placed on a diuretic, for the purpose of increasing, if possible, the section of the kidneys, and thus forestalling danger of uræmic poisoning. For this purpose a drug was chosen which has obtained recent note through the investigations of Dr. Dassure of France, and published in the l'Union Medicale. This gentleman reports cases in which it was used by him where the urine exhibited a strong ammoniacal odor, with heavy morbid deposits, which were speedily relieved by its administration. Mr. W. was placed on half-drachm doses of the fluid extract, three times a day, before meals.

For his dyspeptic symptoms a mixture was given which has become a favorite at the hospital. It consists of soda bicarb., grs. v, tr. nux vomica, gtts. v, tr. capsicum, gtts. 2½, cascara cordial (P., D. & Co.), q. s. to make one drachm. Of this mixture a teaspoonful was given night and morning at first, though afterwards the dose was increased to a teaspoonful three times a day, before meals.

As a nutrient, and to supply his rapidly wasting tissues with material for repair, desiccated blood was ordered. Of this the dose employed was a tablespoonful of the following mixture: Desiccated blood, six drachms, water, four fluidounces, glycerin and brandy, of each a fluidounce. This was ordered to be gived three times a day.

The patient was also directed to take plenty of good food, especially of meat, eggs and milk.

Nov. 3, 1882.—Hemorrhage from bowels stopped. Has taken no medicine. Is constipated. Amount of urine, eight fluidounces.

Nov. 4.—Has taken three doses of corn silk. The urine now has an acid reaction. Amount passed during the past 24 hours, 12 fluidounces. S. g. 1.025, and a heavy deposit of urates. As yet he has not taken the other medicine ordered; has had no movement of the bowels; dyspeptic symptoms persist, and he is very weak.

Nov. 6.—Followed out instructions, and has taken the corn silk and dyspepsia mixture regularly, but not the desiccated blood. Urine 12 fluidounces, acid. No movement of the bowels as yet. Thinks he is improving, and sleeps better.

Nov. 7—Had a free movement of the bowels this morning, accompanied by about a gill of blood. Has taken only one dose of the blood, and is very pale and feeble. His heart is very weak, and the pain in the back continues severe. Ordered three drops fluid extract digitalis, for heart, to be taken three times daily. Urine 12 ounces. Increased corn silk to drachm doses.

Nov. 8.—Has taken all the medicine ordered. Pain in back better. Urine 14 fluidounces. S. g. 1.025; deposits urates; yields slight reaction to test for bile; trace of sugar; no albumen. Pain in back still continues; ordered mustard plaster.

Nov. 9.—Has had free movement of bowels; slightly mushy in consistency and slightly tinged with blood. Urine 10 fluidounces. Pain in back better. He says that he has for a long time had much trouble in passing his water, frequently remaining for some minutes with the vessel in his hand before succeeding in the attempts to void it. This symptom has entirely disappeared.

Nov. 10.—Urine 16 fluidounces. S. g. 1.025; feebly acid. Pain in back worse.

Nov. 11.—Urine 14 fluidounces. S. g. 1.024; acid. Pain in the back still continues. Yesterday in attempting to sit in his chair he fell to the floor and

is in bed to-day from the ?ar received by it. On the whole, however, he seems much better. He has had a free movement of the bowels accompanied by about two fluidounces of blood. His appetite is better; his tongue has cleared up, and his face is not so pale. Pulse 68, temperature normal.

Nov. 12. Out of bed. Urine one pint; back better.

Nov. 13.—Urine one pint. Bowels moved freely attended with about eight fluidounces of blood, this time of a bright red color, and forming a clot as soon as expelled. Appetite good but pain in back still continues. This pain which has attended the case from the beginning seems to be neuralgic in character. It is increased on pressure, and there is a spot of tenderness over one of the lumbar vertebræ. Counter-irritation relieves it some, but the relief is not permanent. Dry cups were now applied, and the relief from them was at once apparent.

Nov. 14.—Urine 14 ounces. Back much improved.

Nov. 15.—Urine one pint. Back not so well.

Nov. 16.—Urine one pint. Back worse.

Nov. 17.—Urine 18 fluidounces. S. g. 1.015; acid reaction. No trace of sugar; no albumen; smaller deposits of urates; slight trace of bile. Appetite continues to improve. Stopped all medicine except the blood and dyspepsia mixture, which was now ordered in teaspoonful doses three times daily in divided doses—half teaspoonful before, and half teaspoonful after meals. Pain in back about the same. For this pain was now prescribed menthol 1 drachm, bromide of ethyl, 1 fluidrachm; mix. To be rubbed on the back with a little sweet oil.

Nov. 18.—Urine 14 fluidounces.

Nov. 19.—Urine 12 fluidounces.

Nov. 20.—Urine 12 fluidounces. Had a movement of the bowels Saturday the 18th, free, and with about a gill of black tarry blood. On Sunday another movement, but no blood. A most marked improvement in his back had taken place. It no longer pains him when at rest, and only slightly when he moves around.

Nov. 23.—Since the discontinuance of the corn silk he has only passed 18 fluidounces of urine, or about 9 ounces in the 24 hours.

Nov. 24.—Mr. W. has passed 18 ounces of urine during the past 24 hours. He has taken 4 teaspoonfuls of the corn silk. Accordingly the amount of urine passed in the 24 hours has been doubled by the corn silk. It is very evident in this case that it was the drug that produced the effect. Again, the effect on the general condition of the patient is most marked. He becomes brighter, is cheerful—a very pleasant change from the gloomy state of mind that characterizes him in the ordinary condition of the case.

Placed him again on the corn silk in ʒ j doses three times a day.

The case is still under treatment.

The effect of the corn silk in this case seems to appoint it a place among the diuretics, and to bear out the good opinion formed of it. Here, however, the deposit has not been stopped as in the cases of Dr. D., though the urine changed from alkaline to acid and presented in every way a better appearance. The case will be watched for further report.

2.

Report from Dr. T. H. Streets, U. S. N., in Proceedings Naval Medical Society, Vol. 1, No. 2: About a year ago the drug firm of Parke, Davis & Co., of Detroit, Mich., sent samples of various new remedies to the surgeon-general, who turned them over to the Naval Dispensary of this city, and requested that they might be given a trial and reported upon.

During the short time I was attached to the Dispensary as assistant to Surgeon A. A. Hoehling, I availed myself of every opportunity to test the value of these new drugs. Whenever any of them was administered, the fact was noted; and I always endeavored to see the case afterwards to learn how the medicine had acted. A number of the cases to be given occurred in the practice of Dr. Hoehling, and I have his consent to bring them before the society in connection with my own.

Stigmata maidis, I have been told, has been used for a long time by the negroes of the south as a domestic remedy for affections of the bladder. Fortunately, in this case, there is a crystalline principle, which has been isolated, and we may therefore expect uniform results. In an article on the study of maize and maizenic acid, by Dr. Fauthier, the conclusions are summed up under six heads:

1. The action of zea mays is always favorable in all affections of the bladder, whether recent or chronic.

2. Maizenic acid is the active principle, and alone possesses the therapeutic properties.

3. The diuretic action is not constant; and is due to the recovery of the affected organ, and not to the medicine.

4. The best results are observed in uric and phosphatic gravel, in acute cystitis, whether simple or due to gravel, and in mucous or muco-purulent catarrh.

5. In the cases treated, the ordinary remedies for these affections had been employed without benefit, while the maize never failed to effect a cure.

6. The maizenic acid has the power of dissolving calculi and calcareous concretions by its chemical action. Its use is indicated in cases of gout and rheumatism.

Dr. Busey, of this city, has tried the remedy in six cases of cystitis and pyelitis. He found it beneficial in all the cases in which it was employed. He states that it is a certain, but mild, diuretic when given in full doses at short intervals.

I have to report four cases where it was employed for the relief of cystitis, in three of which it was decidedly beneficial, and in one it was of no use whatever. The latter was an exceptional case, and no benefit was expected from this or any other remedy. The patient had been twice operated upon for stone, and the bladder was in a sacculated condition. The only measures that gave him relief were strong injections of nitrate of silver. The stigmata was given a fair trial in full doses at short intervals, but the results were nil.

Of the other three cases, the first occurred in the practice of Medical Director Gunnell. He reports the case as a troublesome one of chronic cystitis in a young lady. Several remedies had been employed by the attending physician—inf. digitalis and potassium acetate, fld. ex. buchu, and pareira brava, and others, without benefit. He was induced to try the fld. ex. stigmata maidis. The medicine was entirely agreeable to the patient, and the condition of the bladder began soon to improve, with diminution of the deposit of mucus and pus, and greater toleration of the urine. She has continued to improve. The medicine was given in teaspoonful doses every three or four hours. The patient at the same time was taking Rockbridge alum-water, one pint daily, in four draughts, after the stigmata maidis.

Case 3.—This was a case of acute cystitis in a young man, and was due to urethritis. There was frequent desire to pass water, and, although controlled as much as possible, he was obliged to empty his bladder seven or eight times daily; not troubled at night. There was considerable pain on the passage of the urine, and vesicular tenesmus. The urine was loaded with pus and mucus. At first, gave the fluid extract stigmata maidis in ʒ j doses four times daily, without any improvement in the condition; increased the number of doses to eight daily, or an ounce of the drug, and complete relief followed in two days. The pus first disappeared from his urine, leaving a rather large deposit of mucus, indicating a catarrhal condition of the bladder. Under the continued use of the remedy this

grew less, until the mucus finally disappeared altogether.

Case 4.—This was an aggravated case in a man about seventy years old. He dates the first appearance of his bladder trouble twenty years ago, when he had retention of urine, caused by sleeping on the ground. Three years ago his cystitis became so bad that he was obliged to seek medical aid. All the usual remedies in such cases were tried without benefit. The patient had no control over the bladder whatever; he was obliged to stop and pass water whenever the desire seized him, wherever he might be. Sleep was disturbed very frequently during the night. At first the fluid extract of corn-silk was administered in 3 j doses three times daily with no benefit; but relief was obtained immediately it was increased to 3 j every two hours. The patient took the medicine steadily for about two months, and experienced the greatest relief from its use, gaining almost complete control over his bladder. I should state, in connection with this case, that there was an enlargement of the prostate, and the patient was in the habit of using a catheter to draw off his urine. It was while taking the stigmata maidis that he discovered that he never completely emptied his bladder, but that there was left a small amount of residual urine, which by its fermentation continued the inflammation. He soon learned to get rid of this also; and now passes a very comfortable existence for a man of his age, with an enlarged prostate. The stigmata exerted a marked palliative influence, and it failed to cure because the cause was constantly operating.

In the administration of this drug one thing should be insisted upon; it must be given in full doses at short intervals—3 j every three hours.

3.

Report from Proceedings Naval Medical Society, Vol. 1, No. 2.—Dr. Dean reports that stigmata maidis was tried in several cases of chronic cystitis, and, while they were not cured, the results were favorable in mitigating the severity of the symptoms.

Dr. Gorgas was able to speak very highly of it as a demulcent and diuretic.

Dr. Bloodgood states that in cases of acute and chronic cystitis its action was not remarkable.

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PARKE, DAVIS & CO.'S FLUID EXTRACT. Dose, One to Two Fluidrachms.

BURDOCK has long held a prominent place among vegetable alteratives or depurants, and has been esteemed for its aperient, diuretic and diaphoretic properties. Stillé and Maisch (Dispensatory, 1879) accredit it with producing a gradual and insensible modification of nutrition and it has been chiefly employed as an adjuvant in the treatment of rheumatism, gout, chronic cutaneous diseases and pulmonary catarrhs. In scrofula and constitutional syphilis and in the discharge of copious urinary deposits it has occupied on important position as a remedial agent.

The parts which have been employed are the roots and leaves. The former is officinal in the German Pharmacopœia.

The seeds have, however, not until recently attracted merited attention, but the demand for a preparation of them has latterly been aroused by an article by Dr. Wm. C. Reiter, an old and prominent practitioner of Pittsburgh, Pa. Dr. Reiter details his own experience in the use of the seeds. He inherited from his father psoriasis inveterata (salt rheum or tetter [?]) which had been a heirloom of his family for generations. His father had sought the best of European advice, but without relief, and the doctor, as he neared middle age, found that the hereditary enemy was beginning to become increasingly troublesome. He was advised by a patient, an old farmer, to give burdock seeds a trials. The farmer himself claimed to have found relief through this means after the disease had affected his hands so severely as to cause a shedding of his nails. The doctor followed the advice given, preparing a tincture of the seeds with whisky and taking it in teaspoonful doses three times a day. The recovery which followed was prompt and for nearly forty years he was exempt from his tormentor. In 1875 he made a European tour and returned with his old malady restored in an aggravated form. A return to the burdock seeds once more gave him relief. He pronounces the remedy an alterative stomachic, improving the nutritive, secretory and assimilative functions.

In order to supply the demand which the reproduction of Dr. Reiter's valuable communication in the medical journals has created, we have laid in, at considerable trouble and expense, a stock of burdock seeds, from which we have prepared a fluid extract. The pharmaceutical peculiarities of the seeds, as pointed out by Dr. Reiter, have all been noted in our preparation.

When the obstinacy of salt rheum or tetter, and its rebellion to the most approved therapeutic measures heretofore resorted to, are considered, we apprehend that there will remain but little hesitation on the part of the medical profession to accord a trial to an agent which thus comes to them bearing the endorsement of such reliable authority.

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The following is the article above referred to, being an extract from a letter written by Dr. W. C. Reiter to the editor of the Ephemeris of Materia Medica, Pharmacy, etc.:

"It was my misfortune to inherit, from my father, psoriasis inveterata, which he told me he had inherited from a long line of progenitors. In youth I had spots on my skin foretelling what adult age developed—psoriasis on left leg and ankle—the same place on my body perfectly imiting my father's plague. He was never healed, though he sought medical advice in Europe.

"I was a country doctor, and carried a cane on horseback to relieve the agonizing itching of my leg in warm weather. One warm afternoon (about 1840, I think), I was going to visit a patient with an old farmer, when he exclaimed, 'What makes you tear your leg so furiously with the end of that hickory stick?' I replied, 'To relieve the maddening itch of my accursed tetter.' He said I must cure it; told me he had been afflicted with it on his hands so severely that he had lost his nails. He said I should gather burdock seed and put whisky on it, and take internally. I obeyed: put quite a

quantity into gallon bottles and added whisky, of which I had but little; in the others I put alcohol, and stood them in a warm place. After some weeks I began to take a tablespoonful thrice daily, using that steeped in whisky first.

"After taking all the whisky tincture I found slight improvement in tetter, but a vast power had been bestowed on my stomach. All my life I had to deny myself many things or suffer; now I could eat sauerkraut, turnips, mince pie, etc., etc., and only knew I had a stomach from that singular delight we all feel in satisfying a keen appetite with luscious food.

"I now began to take the alcoholic tincture, and found an entirely different preparation. I had to add water, and discovered resin, and at the bottom of each bottle, oil; here was a hint. I put alcohol on the seed which had been macerated in whisky and obtained a resinous tincture. When my old friend and benefactor prepared his tincture, whisky was distilled in copper stills and came off as proof spirits; my whisky was manufactured by steam. My disease improved rapidly and ceased to torture me, although the skin remained dry and furfuraceous.

"On the advent of summer I observed in washing my hands (a doctor must do that often) a great increase in sebaceous secretion, which required much soap to remove; now my whole cutaneous surface acquired a condition of the most perfect health. Whilst afflicted with tetter I had learned to eschew hog meat—a meal of sausages or ham was always very aggravating—I became a very sincere and faithful Jew in avoiding swine meat or fat as a diet. For almost forty years I had a healthy skin; but my European tour in 1875 restored my old malady in an aggravated form. Their water, in many of the southern parts full of dolomite, both for drinking and washing, may have contributed; but sandwiches of cold ham and bologna sausages were the chief enemies. On my return I could not get the tincture, and, when obtained, its effects were not as before. The taste was not a pure, agreeable bitter, but nauseous. Whether this was owing to mould on the seed or to the druggist having ground them, or to the climate, I could not tell; Mr. Holland said he had bought the seed in New York.

"A pupil of mine, Dr. Clark, took my place (in Mount Pleasant, Westmoreland County, Pa.) when I came to Pittsburg. He was so kind as to have quite a lot of seed gathered for me; I prepared the tincture myself and am now perfectly well. I felt that it restored a perfect digestive power which my stomach lacked, and hence have prescribed it in atonic dyspepsia with such success that Mr. Holland can with difficulty supply the demand; the crop last summer was impaired so much by drought that he was compelled to order the seed from several western states, and still believes he will run short before the new seed can be gathered. I send to you some of the oil obtained from the bottom of a tincture bottle; some resin I found on a board last fall under a bushel percolator, from which I thought dripping had ended; I send two kinds of tincture, one obtained from contused, the other from whole seed. It can be made in a few days by heating alcohol and keeping warm; the cold preparation is very tedious; much alcohol is lost, the seed absorbing it. We have lost much resin, which clung to percolator and seed; we now save that by washing seed with warm alcohol, which we use for our fresh seed. The therapeutical action I could best reduce to form by calling it an alterative stomachic; it appears to improve all the nutritive, secretive and assimilative functions. I prescribe from two to four drachms, well watered, a half-hour before each meal.

"I have for a long time wished to send to you something on this Bardana seed, but am lazy. A suffering illness has admonished me to do so before I die, and I am doing it before I can leave my room. You are the proper person to introduce a remedy and promulgate one of the most valuable therapeutic agents in my armamentarium medicorum."

The specimens which accompanied Dr. Reiter's letter, says the editor of the Ephemeris, were, first, a tincture made from the unbroken seed; next, a tincture made by his pharmacist from the ground seed; next, a portion of oil, and, finally, a portion of resin.

The oil is a bland fixed oil, and from a casual examination it may be said to be like all the fixed oils from similar seed—without medicinal value. And the same is probably true of the tasteless insoluble resin. The effective part is doubtless that extracted by diluted alcohol. The tincture made from the ground seed is stronger in bitterness than that from the unbroken seed, as might be expected, even when the digestion of unbroken seed has been very long continued. For the doses recommended by Dr. Reiter, namely, a tablespoonful thrice daily, immediately after meals, a tincture should be made about as follows:

Take two pounds of the fresh burdock seed and grind it in a good sharp coffee-mill, putting it through several times with the mill screwed up as closely as possible, until the seed is well broken up, though it need not be in very fine powder, for it is the bruising or contusing effect of the mill-teeth that is needed. Put equal parts of the ground seed in two one-gallon bottles, and fill them up with good whisky not less than two years old. These should stand in a warm place, with occasional shaking, for a couple of weeks, when the clear tincture will be ready for use. In an alcoholic preparation like this, which is to exert a prominent effect on the stomach, good whisky, if old enough, is very much better than a diluted alcohol of the same alcoholic strength. If to be taken in doses of one or two teaspoonfuls or less, as with tinctures in general, the alcohol is as good or better than whisky would be for several reasons. But when the dose exceeds two teaspoonfuls the menstruum becomes an important therapeutic element, and then good, natural whisky or brandy of sufficient age should alone be used. In an inveterate disease like this, so simple a plan of treatment is certainly well worth trying upon so good an authority as Dr. Reiter.

Dr. Reiter has aimed at getting a saturated tincture, and has used the fresh seed unbroken. But it has often been shown on other similar seed that they should be broken or crushed, and that when crushed a smaller proportion was needed. It is hardly doubtful that the above given proportion of two ounces of crushed seed to the pint will give as strong a tincture as six ounces of unbroken seed to the pint would give.

The maximum dose of Dr. Reiter, as above stated, is four fluidrachms, well diluted, three times a day, immediately after meals, to be continued for months if necessary, if the disease does not yield sooner; and improvement and restoration may be expected earlier in warm weather than in cold, according to the experience of Dr. Reiter. Relapses are not frequent and are confined to persons who are gross feeders.

In cases of atonic dyspepsia, without cutaneous eruption, he also finds it useful, but here never prescribes more than a dessertspoonful, and that before meals, well diluted.

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For the convenience of those who desire to purchase our products in limited quantities, we have adopted the policy of confining our trade as much as possible to the large wholesale druggists in the large commercial centers. By offering these large houses the inducement of a guarantee that we will not compete with them among physicians and druggists (whom they consider as patronage naturally tributary to them), we have induced them to purchase and carry in stock a well assorted line of our various preparations. This action on their part calls for the outlay of a considerable amount of capital, and our friends among the profession and the drug trade will no doubt appreciate the necessity of our avoiding direct competition with those who have invested largely in our manufactures with the above understanding.

This action has been taken by us as above stated for the convenience of our friends in the smaller places. They are thus enabled to purchase such fluid and solid extracts, sugar coated pills, elixirs, capsules, and other articles upon *our* list, in connection with crude drugs, chemicals, druggists' sundries, *and other articles usually carried in stock by the wholesale drug trade*, saving thereby the excessive freight charges which would be incidental to the transportation of a small amount of our products direct from Detroit.

To Physicians: We would state that if you do not desire to purchase directly of the wholesale trade, it would be wise to approach the nearest retail druggist with an order for our products in stated quantities. If an order is given to a dealer for fluid extracts in original packages (say half or one pound bottles), sugar coated pills in bottles of 100 or more, and other articles in proportion, he will be enabled to offer as low rates as we ourselves should give under like circumstances. Druggists cannot afford to share their margins in this manner unless they *are assured of purchases in quantity.* If your druggist does not carry our line of goods in stock, he will undoubtedly order a supply for you from the nearest wholesale house, if you will assure him that you will purchase in sufficient quantities.

To Druggists: We would refer you to the appended list of wholesale druggists in the large commercial centers, all of whom carry our goods in stock to a greater or less extent. In every large city in the United States there is at least one house which carries a well assorted line of our goods, hence *if P., D. & Co.'s products are specified upon your orders* and submitted to any wholesale house, there is no reason why the products should not be supplied. The excuse in return that "*they are not to be found in the city*" may be assumed to be a mis-statement made by the wholesale dealer, either as a result of a careless disregard of proper courtesy to you on the part of his employees, or else as an intentional desire to substitute other brands which afford him greater profits. We would therefore recommend our friends to insist that their requisitions shall be filled as submitted, and if other goods are substituted, that they re-pack and return them per express at the expense of the sender.

Our products may be obtained by specifying 'P., D. & Co.'s," from any of the appended list of wholesale druggists.

PARKE, DAVIS & CO.,
DETROIT, MICH.

SEPTEMBER 1, 1881.

BUSINESS AND SCIENTIFIC POLICY

—OF—

PARKE, DAVIS & CO., Manufacturing Chemists,

DETROIT, MICH., U. S. A.

—PLATFORM.—

Many of the articles advertised in the Medical Journals, claiming to be pharmaceuticals, cannot be admitted into the pharmacopœia, or accepted in scientific literature, for the reason that the names of these preparations are claimed as private property, and their formulæ, and art of manufacture, are nowhere published, but are things of Trade Secrecy. The pharmacy of these articles, therefore, is in danger of becoming a lost art, and their disappearance from existence is merely a question of time. What will be the effect on the Literature of Medicine if medicinal preparations, the names of which are incorporated in the medical text-books, no longer exist in the next century? We hold that every new preparation introduced should be provided with a proper name, and that its formula should be published in standard literature, in such a manner as will enable any one else to manufacture the article, so that the Pharmacy of the Nineteenth Century may have a place in history

We have no objection to an author's copyrighting his book, as his doing so does not prevent any one else from writing another book on the same subject, or in any way prevent the free diffusion of knowledge. We do not object to a Pharmacist patenting his machinery, apparatus or processes, believing that the patent law was designed to stimulate inventors to invent, and to publish their inventions, for the purpose of promoting progress in Science and the Arts. The Patent law does not lock up knowledge, and the invention finally becomes public property. We do not object to that just protection given to the manufacturer of a known article by the use of a trade-mark, to designate his brand from all other brands of the same article, but we do most earnestly protest against that abuse in which the common or only name of an article is claimed as a trade-mark, the article itself monopolized forever in consequence, and the nomenclature of pharmacy ruined thereby. As it is a recognized axiom in law that a descriptive name cannot be used as a trade-mark, it would seem to us that the names claimed as such in the cases referred to, where the articles are not accompanied by proper names, become by use the proper designation, and that the manufacturers of these compounds will find to their sorrow, when the matter comes to a legal test, that the Supreme Court will decide against them. These points are of great importance to science, to legitimate trade, and to the public at large.

Our attempt is to put Pharmacy on such a basis that it can be regarded as scientific, and that it may be accepted by the Pharmacopœia and in scientific literature.—*The Pharmacist and Chemist, May*, 1882.

PARKE, DAVIS & CO.

THE HOSPITAL PLAN.

This new line of scientific work which has been designated for a name "The Hospital Plan," is designed for the purpose of testing new drugs for the benefit of science. It is to be accomplished by treating a sufficient number of properly selected cases with the drug by competent physicians and surgeons in the hospitals and dispensaries of our large cities, for official report. The result of this work will not be made public until at least twenty-five cases have been treated in different hospitals, to constitute a fair test for each drug, after which full reports will be furnished to the medical press for publication, whether good, bad or indifferent. Reprints of articles in the journals in record of this work will be furnished members of the profession who may so desire, and it is the final purpose of the house to print the collection in book form as a donation to scientific literature

Science professes to exhibit what is actually known or may be learned by exact observation, precise definition, fixed terminology, classified arrangement and rational explanation. It is impossible to satisfy the demands of science under the system of exclusive control instituted by trade-marks, copyrights and patents, because the tendency is to suppress unfavorable reports which might injure sales. All drugs, therefore, are presented for this test free from such unscientific protection

Thanking the profession and the medical press for their promise of cordial support, we are

Your Friends,

PARKE, DAVIS & CO.

WORKING BULLETIN SYSTEM.

WORKING BULLETIN

FOR THE SCIENTIFIC INVESTIGATION OF

QUEBRACHO.

(ASPIDOSPERMA QUEBRACHO.)

A Plan to promote Progress in the Science of Pharmacology.

This working bulletin, accompanied by the drug to be investigated, or a preparation of the same, or both, as the circumstances require, is distributed gratuitously to the Colleges, Universities and other institutions engaged in scientific work, and to the government hospitals, and public hospitals and dispensaries, and to the medical profession at large, to obtain the results of the drug in treating the sick.

The object is to promote original investigation in the science of drugs. This we propose to do by furnishing gratuitously to those engaged in original research, material for investigation, and by publishing the results of the same as a donation to scientific literature. It is apparent that the only return which we can receive for this work is the increased demand for the valuable drugs which we are introducing to science, for we guarantee to publish full reports, favorable or otherwise.

Articles in relation to the drug, under the following heads embraced by the pharmacology, are requested for the THERAPEUTIC GAZETTE, the organ which represents this new system of work. These heads form the classification of this bulletin. In regard to each drug investigated we solicit reports for publication upon the subjects of scientific name; synonyms; definition; natural order; botanical origin; history; commerce, production; cultivation, description; microscopical structure; chemical composition; uses (in medicine); adulterations and substitutions; pharmaceutical preparations and dose; antagonists and incompatibles, synergists physiological action; therapeutic properties; toxicology and antidotes.

At the end of the year the reports published in the GAZETTE will be collected, classified and published in the form of an ANNUAL REPORT, and donated to the libraries of the Smithsonian Institute, a government institute at Washington for the free diffusion of knowledge; and a sample of the drug, and our preparation of it, will be deposited in the National Museum, in the department delegated to pharmacology.

SENT OUT BY THE SCIENTIFIC DEPARTMENT OF

PARKE, DAVIS & CO., Manufacturing Chemists,

DETROIT, MICHIGAN, U. S. A.

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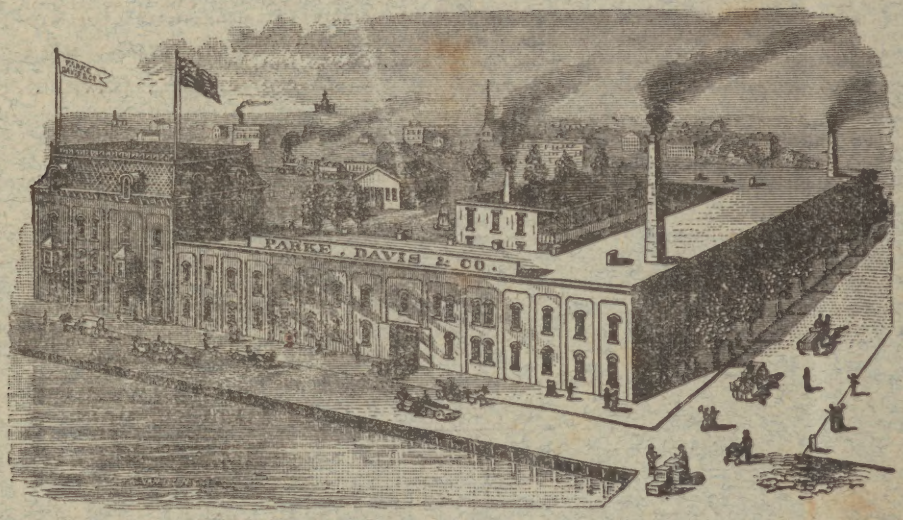
Manufacturing Chemists,



DETROIT, MICHIGAN

U. S. A.